

We are as smart as rocket scientists

20th December, 2021



Most of us have the impression that rocket scientists and brain surgeons are super-brainy. Scientists have conducted research that suggests members of the general public are actually just as smart as those high-flyers. Researchers

from University College London asked 329 aerospace engineers and 72 neurosurgeons to complete tests designed to assess six different areas of cognition. The researchers compared their data with those from 18,257 respondents who had previously taken the tests. The researchers said: "Only two differences were significant: the neurosurgeons' problem-solving speed was quicker and their memory recall speed was slower."

The research questions the validity of using English phrases such as "this isn't rocket science" or "that isn't brain surgery". We use these expressions to suggest something is actually quite easy to understand. Are aeronautics and neuroscience so mindboggling? The researchers shed some light on this. They said: "In situations that do not require rapid problem solving, it might be more correct to use 'It's not brain surgery', but in situations where rapid information recall is needed this phrase should be avoided." This gives hope to all of us that we can embark on careers we once disregarded because of "genius-level" requirements. However, this could lead to a glut of brain surgeons and rocket designers.

Sources: bbc.com / iflscience.com / sciencealert.com

Writing

Anyone can be a rocket scientist if they really want to. Discuss.

Chat

Talk about these words from the article.

rocket / scientist / brain surgeon / research / the general public / cognition / memory / validity / English phrases / mindboggling / problems / information / career / genius

True / False

- 1) The article says everyone thinks rocket scientists are brainy. T / F
- 2) Researchers tested the cognition of 72 rocket scientists. T / F
- 3) Researchers' found only two major differences in their data. T / F
- 4) Neurosurgeons could recall memories quicker than average people. T / F
- 5) The researchers said we should never use certain English phrases. T / F
- 6) The researchers used a torch to shine light on a question. T / F
- 7) The article suggests we could all do the careers we wanted. T / F
- 8) The article joked that we could have too many brain surgeons. T / F

Synonym Match

(The words in **bold** are from the news article.)

- | | |
|-----------------------|---------------------|
| 1. impression | a. evaluate |
| 2. conducted | b. phrases |
| 3. assess | c. steered clear of |
| 4. cognition | d. notable |
| 5. significant | e. carried out |
| 6. validity | f. cast |
| 7. expressions | g. thinking |
| 8. shed | h. excess |
| 9. avoided | i. sense |
| 10. glut | j. logic |

Discussion – Student A

- a) How intelligent are you?
- b) How can we increase our intelligence?
- c) Do you think rocket scientists are super-brainy?
- d) How do people become rocket scientists?
- e) Would you rather be a rocket scientist or brain surgeon?
- f) What are your problem solving abilities like?
- g) How is your memory?
- h) What would change in life if you were more intelligent?

Phrase Match

- | | |
|---|-----------------------------|
| 1. brain surgeons are super- | a. flyers |
| 2. members of the general | b. once disregarded |
| 3. just as smart as those high- | c. speed |
| 4. tests designed to assess six different | d. of using English phrases |
| 5. their memory recall | e. light on this |
| 6. The research questions the validity | f. brainy |
| 7. something is actually quite easy | g. of brain surgeons |
| 8. The researchers shed some | h. areas of cognition |
| 9. embark on careers we | i. public |
| 10. this could lead to a glut | j. to understand |

Discussion – Student B

- What do you think about what you read?
- Who is the most intelligent person you know?
- Do you find it difficult to remember English phrases?
- What career would you love to embark on?
- How do people become brain surgeons?
- What makes one person more intelligent than another?
- Do you think we are all of similar intelligence?
- What questions would you like to ask the researchers?

Spelling

- Most of us have the reopsniims that...
- brain gsrusnoe
- 329 cpreaesao engineers
- six different areas of oionitngc
- from 18,257 nsndeeropst
- two differences were agnisciftin
- The research questions the vitlaidy
- We use these expironesss
- so diggloinnbgm
- this phrase should be aviedod
- careers we once deigeddarrs
- "genius-level" tqeinemruesr

Answers – Synonym Match

1. i	2. e	3. a	4. g	5. d
6. j	7. b	8. f	9. c	10. h

Role Play

Role A – Intelligence

You think intelligence is the most important attribute in a person. Tell the others three reasons why. Tell them what is wrong with their attributes. Also, tell the others which is the least necessary of these (and why): a sense of humour, loyalty or generosity.

Role B – Sense of Humour

You think a sense of humour is the most important attribute in a person. Tell the others three reasons why. Tell them what is wrong with their attributes. Also, tell the others which is the least necessary of these (and why): intelligence, loyalty or generosity.

Role C – Loyalty

You think loyalty is the most important attribute in a person. Tell the others three reasons why. Tell them what is wrong with their attributes. Also, tell the others which is the least necessary of these (and why): a sense of humour, intelligence or generosity.

Role D – Generosity

You think generosity is the most important attribute in a person. Tell the others three reasons why. Tell them what is wrong with their attributes. Also, tell the others which is the least necessary of these (and why): a sense of humour, loyalty or intelligence.

Speaking – Attributes

Rank these with your partner. Put the best attributes at the top. Change partners often and share your rankings.

- | | |
|----------------|-------------------|
| • perseverance | • intelligence |
| • loyalty | • sense of humour |
| • generosity | • humility |
| • selflessness | • kindness |

Answers – True False

1 F	2 F	3 T	4 F	5 F	6 F	7 T	8 T
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Answers to Phrase Match and Spelling are in the text.