KNOWLEDGE
1. What is addiction?
2. What is the opioid crisis in the USA?

COMPREHENSION
3. How and why do many people become addicted to opioids?
4. Can you explain what Cognitive Behavioral ImmersionTM is?
5. How does a randomised controlled trial evaluate the effectiveness of an intervention?

APPLICATION
6. What other applications of VR can you think of in the field of psychology?
7. What role could VR play in other scientific fields?
8. If you were conducting Noah’s randomised controlled trial, what factors would you keep the same between the experimental group and control group, and what would be different?

EVALUATION
9. How have Noah’s own experiences influenced his research?
10. Do you think it’s valuable for scientists to use their own life experiences to inform their research? Could there be any problems with this?
11. What other areas of research do you think are important to better understand and combat the opioid crisis?

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM
Design an experiment that tests the effectiveness of an intervention for enhancing someone’s mood.

- Choose a simple and safe intervention that you believe may enhance peoples’ mood (e.g. doing 20 minutes of exercise or writing ten things you are grateful for every day). You can see these tips from the NHS for inspiration: www.nhs.uk/mental-health/self-help/tips-and-support/how-to-be-happier

- Write a hypothesis stating what you are testing and expecting to find. E.g. “People who do 20 minutes of exercise every day will have a better mood than people who do not exercise.”

- Design a mood survey to test the effectiveness of your intervention. This could include quantitative questions like “On a scale of 1 to 10, how happy do you feel today?” and qualitative questions like “Describe how you feel today.”

- Find study participants and collect reference data by asking everyone to complete the mood survey for one week with no intervention.

- Randomly assign some participants to your control group and some to your intervention, then ask participants to continue the mood survey for another week.

- Collect and analyse your results.

- Consider: What are the pros and cons of quantitative versus qualitative questions in your mood survey? How will you control other variables that may affect your results? How will group size influence the reliability of your results? When and how often will participants fill in the mood survey? How will you analyse your results? Do your results show any trends? Are there any other factors that may explain these trends? Do you think your intervention is effective?

MORE RESOURCES

Watch Noah’s TED talk on his research, ‘Gaming the system: Battling opioid addiction with virtual reality’: www.youtube.com/watch?v=MnUw16EjCys

Another example of how virtual reality is being used to try to combat addiction – in this case, to cigarettes – is outlined here: health.howstuffworks.com/wellness/smoking-cessation/can-virtual-reality-help-you-quit-smoking.htm

Learn more about Noah’s company, Very Real Help, at the website: veryrealhelp.com

Read more about clinical psychology at Vanderbilt University: www.vanderbilt.edu/psychological_sciences/graduate/programs/clinical.php