

Chapter 4 Project

Purpose

In this chapter, you have learned about sensation and perception, our connection with the outside world. **The purpose of this project is to investigate 1) how sensation and perception contribute to success in multiple areas of your daily life; 2) how the lack of functioning senses would be detrimental to people's lives; and 3) how the nervous system is involved in sensation and perception.**

Directions

Answer the following questions, which build upon one another. Your answers should be robust, including examples or illustrations, and should be thoroughly explained in your own words.

Part 1 - Choose any one of the five senses: sight, smell, touch, taste, or hearing. Describe three ways that this sense helps you in particular tasks that are related to being successful in three different areas of your life (e.g., relationship, work, school, etc.: one per area). The three tasks should be specific (e.g., typing on a computer, communicating with my partner, knowing when something is burning as a cook at a restaurant, etc.), and you should explain how it is related to success. List them as bullet points 1, 2, and 3.

Part 2 - Now, choose any one of the three tasks and write a paragraph that describes both the electrical and chemical process of sensory communication associated with the task. (You may need to revisit Chapter 2 or outside sources.) Also, explain the role transduction plays in moving this information from the outside world, through to sensation and perception.

Part 3 - If this sense did not work correctly, characterize three negative outcomes that could happen in your (present) life as a result. Be specific and thorough.

Part 4 - Use a search engine to find a case where someone did not have this functioning sense. (Use critical thinking to determine if it is a reputable source. Include a reference with a link.) Describe this person's situation as if you were writing to a friend to explain it. Provide specific examples of its impact in this person's life. Use Chapter 2 and online sources to assess and describe which parts of the brain are involved in processing this sense. If you can further determine which neurotransmitters are involved, please list them and their general function in the brain. If you cannot determine this for certain, make a statement about which neurotransmitters you think might be involved and why.

Materials

None required.

Checklist

Part 1 - Senses in Everyday Life

- choose a sense
- life area #1
 - task 1
 - How is this sense related to success?
- life area #2
 - task 2
 - How is this sense related to success?
- life area #3
 - task 3
 - How is this sense related to success?

Part 2 - Sensory Communication (1 paragraph)

- electrical & chemical communication for one task
- transduction

Part 3 - Problems with Chosen Sense

- potential negative outcomes in your present life
 - negative outcome #1
 - negative outcome #2
 - negative outcome #3

Part 4 - Explain a Real-Life Example

- find a reputable case study of someone without chosen functioning sense
- informal explanation with specific examples
- describe parts of the brain involved in chosen sense
- explain how they are involved
- Which neurotransmitters? Why?