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Age and reactions



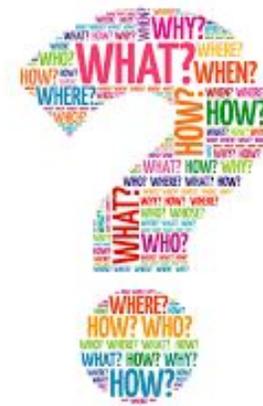
Introduction

My experiment is how does age affect your sensory reactions? I chose this experiment because not many people know if your senses get better or worse. Also, I think that some senses get worse but others improve.



Question

My question is that when you are older, will your sensory reactions get worse or will some parts get worse or will some get worse but others can get better? I think this because many people have not very well senses but on the other hand, some people actually get really good senses even when the are older.



People of different ages

Hypothesis

My hypothesis is: When you are older, some of your senses are going to decline but... the other senses are going to improve! I will have the same people but I change the materials and I control what people are doing.



I think that because some people may have rather perception of their environment with age. And some may lose their sensory reactions over time.

Procedure

Materials

For this experiment, I need:

- Three people of different ages
- Nelson eye chart
- A Piano
- Things of different weights
- Water, sugar, lemon juice and salt
- syringes
- Headphones



Variables/What are experiments?

Touch

Independent variable: The objects

Variable Depente: how much they feel

Controlled variables: how hard I put it on

Hearing

Independent variable: the noise level

Variable Depente: how much they hear

Controlled variable: the piano

Vision

Independent variable: size of letters

Variable Depente: If you can see the letters

Variable controlled: where they are standing

Taste

Independent variable: liquids

Variable depente: If you can taste it

Controlled variable: the amount of liquid

I will have three test subjects with three different ages. They are going to do probaba for the degradation of sensory reactions in audience, vision, taste and touch. The slides after this are going to tell you about the steps of the experiments.

hearing

Steps

1. Put on your headphones on and get ready
2. Do the different types of sound on the piano
3. You're going to ask how loud it was
4. When they can't hear it anymore, you can stop and write down the results.

Vision

Steps

1. Tape the Nelson eye chart to the wall
2. Make sure that everyone is exactly 10 ft away from the wall
3. Ask what the letters on the papers are
4. When they can't hear anymore, you can end the experiment.
5. Write down the results.

taste

Steps

1. Put 10 ml of lemon juice, 10 ml of salt with water and 10 ml of sweet with water.
2. Sauté 1 ml of lemon juice, sweet and salt and put with 9 ml of water
3. Do this twice more then your ready
4. Fill the syringe to 3 ml and put the person's tongue.
5. Do this for all the people and all the flavors.

touch

Steps

1. Tell the person to close their eyes.
2. Put the different objects on the persons hand.
3. Do not drop the object into the person's hand. You put the soft object in your hand.
4. Ask the person if they can feel the object.
5. When they can't feel the objects anymore, you can end the experiment.

Observations

I note that for the audience experiment, my grandfather has a good audience... but also my dad and my brother. In the vision experiment, my brother has the best. And for the touch experiment, my dad was very good. For the taste, it was the same mainly. Those were my observations. Also, I noticed that my dad did not feel the salt for the taste experiment. So I think that is also personal because they are all different.

Analyses

First, you need to prepare the experiments. Then, you can do the experiments and write down the results. Finally, make the observations and think about whether your hypothesis is correct.

Data chart part 1

Vision

+ = can see
x = can not see

Talla	Grandpa 75	Dad 46	Brother 7
20/200	+	+	+
20/100	+	+	+
20/80	+	+	+
20/63		+	+
20/50			+
20/40			+
20/32			+
20/25			
20/20			

Can't see

Can't see

Can't see

Data chart part 2

Hearing

+++ = really good, ++ = not good, not bad, + = a little and x = nothing

Level	Grandpa 75	dad 46	Brother 7
10	+++	+++	+++
9	+++	+++	+++
8	+++	+++	+++
7	++	+++	+++
6	+	++	++
5	+	++	++
4	+	++	++
3	+	x	+
2	X	x	x
1	X		x

Data chart part 3

Touch

+++ = really good, ++ = not good nor bad, + = a little and x = nothing

Objects	Grandpa 75	Dad 46	Brother 7
Cellphone 191 gm	+++	+++	+++
Window controller 90 gm	+++	+++	+++
Airpods 51 gm	+++	+++	++
Doorknob 8 gm	+	+++	+
Lego man 4 gm	+	++	++
Ping-pong ball 3 gm	+	++	++
Lego piece 2 gm	+	+	++
Nerf bullet 1 gm	+	+	+
Feather weightless	x	X	X

Discussion/Credits

One thing I think you can do differently is... I can make boys and girls also so it is a little more advanced and has more evidence. I can also do more than 3 people because more people are better!

Thanks to: My dad, Nelson's eye chart, the piano, and <https://www.amnh.org/explore/ology/brain/taste-a-smell-test2>.

Conclusion

In conclusion, my hypothesis was not correct, but... I found that some people have different reactions because it is a little personal. Like my dad, he can't taste the salt that well. But also in the vision experiment, my brother has the best vision. And also many older people don't have very good vision.

