

Investigation into factors affecting reaction time

Method

1. Ask your first volunteer to sit in the chair with good upright posture and eyes looking across the room.
2. Have the volunteer place their forearm (the part of the arm from elbow to hand) so it extends over the edge of the table.
3. Ask the volunteer to place their thumb and index (pointer) finger on either side of the bottom of the vertically placed ruler. The number "1" should be on the bottom, the "30" near the top.
4. Let your volunteer practice holding the ruler with those two fingers.
5. Now, ask your volunteer to remove their fingers from the ruler while you continue to hold it so that the bottom of the ruler is at a height of 2 cm above the fingers.
6. Tell your volunteer that you will release the ruler without warning. Their job will be to catch it with their thumb and forefinger as soon as they sense it dropping.
7. Drop the ruler. When your volunteer catches it, record the number on the ruler displayed just over the thumb. The lower the number, the faster the reaction time.
8. Conduct five trials with the same volunteer, dropping the ruler from 2 cm above their fingers each time.
9. Repeat the experiment with at least five other volunteers and record your results in a suitable table.

Analysis

1. Use a conversion table to convert the distance measured to a reaction time for each volunteer.
2. Discuss the extent to which your results support the hypothesis.

Risk analysis

Hazard	Risk	Control measure
No significant risks are associated with this investigation.		

1. A possible alternate activity could be to compare the volunteer's dominant hand with their non-dominant hand.