

Title: The Role of Distractions on Response Time

Purpose:

- to determine the effect of practice on response to a reflex action
- to determine the effect of distractions on response to a reflex action

Hypothesis:

State what you think the effect of practice and distractions will be on response to a reflex action.
(Will practice decrease or increase response? Will distractions decrease or increase response?)

Materials:

metric ruler or meter stick

Procedure:

1. Work in pairs, facing each other.
2. One partner faces the other holding ruler at the end with the highest measurement.
3. The other partner places her thumb and index finger at the end of the lowest measurement, but does not touch the ruler.
4. After signaling readiness, the 1st partner releases the ruler and the 2nd tries to catch the ruler with the thumb and index finger as soon as it is released.
5. Record the cm mark at which the ruler was caught. **Repeat the procedure 9 times.**
6. Record the data in a data chart and calculate the average distance.
7. Repeat with the 1st partner releasing again while varying the environmental conditions to produce distractions. (Ask questions about homework or friends, tell jokes, sing, etc.)
8. Use the same type of distractions each time and repeat for a total of 10 trials. Record data and calculate average distance.
9. Switch jobs and repeat without and with distractions...use same distractions as above. (Remember to describe the specific distractions you used!)
10. Graph distance (y-axis) vs trial (x-axis) for each data set (multi-line graph).
11. Graph average distance (y-axis) vs condition (x-axis).

Results: (This is where you place your data charts and graphs!)

1~4 data charts and 2~4 graphs

Discussion: (Use these questions to guide your discussion. Also refer to the lab grading guidelines)

1. Briefly summarize what you did
2. Describe the patterns in each graph: Did the lines increase or decrease with trial number?
3. Does this indicate improved performance or no difference in response distance?
4. How did the lines for the "with distractions" conditions compare with the initial (control) trials? Were they as steep? Did they "move" in the same direction?
5. Were the patterns similar for each partner?
6. Was the average response distance longer or shorter with or without distractions or was there no obvious difference?
7. Were the distracting conditions you chose really distractions or response enhancers?
8. What kind of measurement errors might you have made?
9. Were there distractions other than the ones you actually used?
10. Suggest other sources of error.
11. Were your hypotheses supported or refuted?

Conclusion: (A one sentence testable statement that follows from your results, what you did, what you observed)

For this activity use the following format:

The results (support, refute) the hypothesis that practice (decreases, increases) response distance and distractions (decrease, increase) response distance.

Reflection:

(A personal statement about the activity, whether it relates to "real life," whether you liked it, suggested improvements)