

1. Scrambled Sentences Data:

Time each group member as they build a one sentence for the words on each line.

Group Member 1	Group Member 2	Group Member 3
Name:	Name:	Name:
01 him was worried she always 02 from Florida oranges temperature 03 ball the throw toss silently 04 shoes give replace old the 05 he observes occasionally people watches 06 be will sweat lonely they 07 sky the seamless gray is 08 should now withdraw forgetful we 09 us bingo sing play let 10 sunlight makes temperature wrinkle raisins	01 circles silver in she twirled 02 door grandmother the sunlight opened 03 pictures they landscape thinner painted 04 shines hair gray brush her 05 lies nap dog my down 06 jam carefully jars white open 07 twice cake read recipes 08 mashed deliberate yummy potatoes are 09 dishes now dried slowly she 10 enjoy listen retired music people	01 steady me he for waited 02 late road detours make drivers 03 sleeps often dog bowl the 04 stairs the entrance museum had 05 wood old slightly houses lean 06 be smell can dusty antiques 07 past elephants the gentle remember 08 pages covers aged crack book 09 success numbers declining chart mean 10 kernels peck spring chickens corn
Time:	Time:	Time:

2. ● Identify the phases in a statistics study:

<i>Problem</i>	<i>Plan</i>	<i>Data</i>	<i>Analysis</i>	<i>Conclusion</i>
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3. ● Identify four jobs that might use PPDAC to conduct research.

<i>Scientific Researcher</i>	<i>Statistician</i>	<i>Big Data Analyst</i>	<i>Psychologist</i>
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4. ✓ Assign each task its name (Word Bank: Data, Conclusion, Problem, Analysis, Plan). Then, put them in order (1-5).

Order #	Task Name	Task (not in order)												
1	<i>Problem</i>	Task V: Choose to research: "How does priming with words associated with old age affect the speed at which you walk?" Also, Choose Variables: (1) Entrance speed, (2) Exit speed (3) Primed with Old Age Words or Isn't												
4	<i>Analysis</i>	Task W: Divide the data into two groups: Primed with old age words or not. Calculate the difference between entry and exit speeds. Average the difference for both groups.												
2	<i>Plan</i>	Task X: Decide to advertise to local people via social media ads. Plan that when people arrive, randomly assign them be primed with old age words or not. Figure out how to time their entrance into the room and their exit from the room.												
5	<i>Conclusion</i>	Task Y: In the report, write that on average, the group who was primed with old age words walked more slowly down the hall to hand in their answers than those who weren't. Subconscious priming can impact walking speed.												
3	<i>Data</i>	Task Z: For 52 participants, repeat the study and collect the results in a table: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Participant</th> <th>Time to Enter</th> <th>Time to exit</th> <th>Old Age Priming</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>3.2 sec</td> <td>3.5 sec</td> <td>N</td> </tr> <tr> <td>2</td> <td>3.4 sec</td> <td>4.5 sec</td> <td>Y</td> </tr> </tbody> </table>	Participant	Time to Enter	Time to exit	Old Age Priming	1	3.2 sec	3.5 sec	N	2	3.4 sec	4.5 sec	Y
Participant	Time to Enter	Time to exit	Old Age Priming											
1	3.2 sec	3.5 sec	N											
2	3.4 sec	4.5 sec	Y											

5. ✓ Identify the phase of PPDAC where each of the following occurs.

(a) Calculate r	Analysis	(h) Choose research question	Problem
(b) Create graph	Analysis	(i) Collect survey data	Data
(c) Calculate mode	Analysis	(j) Run experiment many times.	Data
(d) Make scatterplot	Analysis	(k) Create spreadsheet.	Data (Analysis)
(e) Evaluate errors	Conclusion	(l) Divide subjects into control and test groups.	Data
(f) Create a pie chart	Analysis	(m) Decide how to do randomization.	Plan
(g) Repeat the experiment.	Data	(n) Decide how many times to replicate the experiment.	Plan

6. ☺ To prove one thing causes another, you must do three things:

Replication	Repeat the experiment across a large number of people.
Random Assignment	Assign people to a control group (placebo) and an experiment group.
Effective Sampling	Choose people for your study from a wide variety of backgrounds and groups.

7. ☺ Read the following description. Answer the following questions about it.

In October 2009, the Fun Theory researchers wanted to get people to walk up the stairs. At the Odenplan subway station in Stockholm, Sweden, they counted how many people took the stairs. Then, they converted the staircase into a piano and counted how many people took the stairs after it was more fun to use. After 5,000 people were measured, they found that 60% more people took the staircase after it was turned into a piano.

a) What is the research question?	Can we encourage people to take the stairs if they are more fun?
b) How much Replication?	5000
c) Identify the calculation that occurred.	60% more people took the staircase after it was a piano.

8. ☺ Read the following description. Answer the following questions about it.

In 1989, a researcher in Alabama wanted to evaluate question wording effects. People in a mall were randomly asked one of two questions: (1) Would they consider surgery with a 90% success rate or (2) Would they consider surgery with a 10% failure rate. People were 5 times as likely to say yes to the success rate than to the failure rate.

a) What is the research question?	Does the question wording influence how people will respond?
b) Was there randomization? If so, where?	Yes; participants were asked one of 2 questions.
c) Identify the conclusion.	People were 5 times as likely to say yes to the success rate than to the failure rate.