AP Psychology

2026-2027

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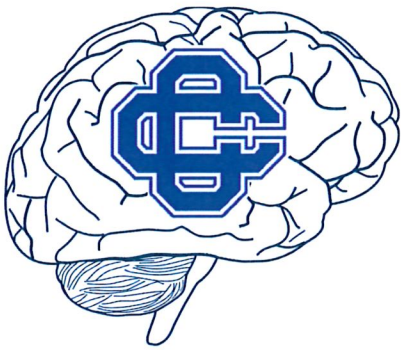


Dear Incoming AP Psych Students,

Welcome to AP Psychology! I am absolutely thrilled to embark on this fascinating journey with you. Together, we are going to dive deep into the wonders of the human mind and behavior. Why do we dream? How does memory work (and why does it sometimes fail us)? What drives our motivations, emotions, and social interactions? Why does any of this matter? This year, we'll get to scratch the surface of the answers to these questions and ask many more.

I want to acknowledge that everyone is entering this class from a different starting line: for some of you, this is your very first AP course, while for others, it might be your fifth! No matter where you fall on that spectrum, please know that your unique beliefs, skills, and abilities are incredibly valued here. We are a diverse community of learners, and every single one of you belongs in this space.

While exploring the quirks of human nature is incredibly fun, it's important to remember that psychology is, at its core, a rigorous science. To truly understand the mind, we have to look at the data. That's why a major focus of our course and the AP test will be on foundational research practices and basic statistical interpretation. To hit the ground running, your summer homework is to complete the attached research methods notes packet. Having a solid baseline understanding of how psychological studies are designed, conducted, and analyzed before Day 1 will set you up for success. Enjoy your summer break, get ready to see the world through new lenses, and I can't wait to meet you all in the fall!

Warmest Regards,

Mrs. Murphy

Summer Assignment: Please use the resources found on the website (QR code) to complete the note packet and understand the concepts presented. You'll see the learning targets on the front page to further direct the skills you should come prepared with. Don't be shy! Click around, watch the Mr. Sinn videos, try some practice problems using other online resources, and go through the slide deck at the bottom and explore the embedded resources there!

Website: AP Psychology with Mrs. Rhodes: Scientific Practices

Summer Assignment
Unit 0: Science Practices

Apply psychological perspectives, theories, concepts, and research findings.

Evaluate qualitative and quantitative research methods and study designs.

Evaluate representations of psychological concepts in quantitative and qualitative research, including tables, graphs, charts, figures, and diagrams.

Develop and justify psychological arguments using evidence.

Topic	Learning Objective
Unit 0	Identify psychology-related concepts in descriptions or representations of data.
0.1 Psychological Science and Research Design	Explain how cultural norms, expectations, and circumstances, as well as cognitive biases apply to behavior and mental processes. Evaluate the appropriate use of research design elements in experimental **AND** non-experimental methodology. Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
0.2 Non-Experimental Research	Determine the type of research design(s) used in a given study. Evaluate the appropriate use of research design elements in non-experimental methodologies. Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
0.3 Experimental Research	Determine the type of research design(s) used in a given study. Evaluate the appropriate use of research design elements in experimental methodology. Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
0.4 Statistical Reasoning	Calculate and interpret measures of central tendency, variation, and percentile rank in a given data set. Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
0.5 Ethics in Research	Evaluate whether a psychological research scenario followed appropriate ethical procedures.

Psychological Science and Research Design

Psychology:

Critical thinking:

Cognitive Biases

Hindsight bias:

Overconfidence:

Confirmation bias:

Elements of Research Design

Hypothesis:

What is falsifiability?	

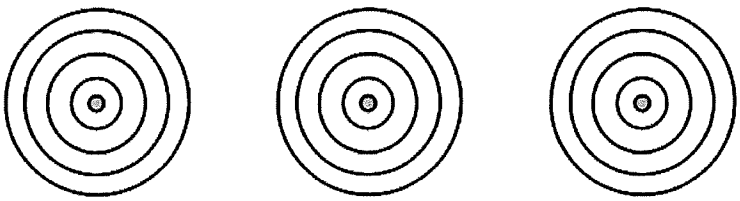
Operational definition:

Why is it important to operationalize within a study?	

Outcomes

Reliability:

Validity:



Reliable, but not valid | Unreliable and hence not valid | Reliable and valid

Generalizability:	
Representation	
Population	Sample
Sampling:	
Sampling bias:	
Convenience sampling:	
Representative sample:	
Random sampling:	
Why is it crucial to have a representative sample?	
Measurement Instruments	
Qualitative research	**Quantitative research**
Example(s)	Example(s)

Survey Method	
Survey	
How can surveys be used in other types of studies?	
Pros	Cons
Self-report bias:	
Social desirability bias:	
Conclusions	
Peer review:	
Replication:	
Why is replication important?	

Non-Experimental Research

What benefit can non-experimental research have within psychological science?	
What limitation does all non-experimental research have?	

Case Study

Case study:

Pros	Cons

Meta-Analysis

Meta-analysis:

Pros	Cons

Naturalistic Observation

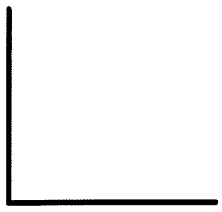
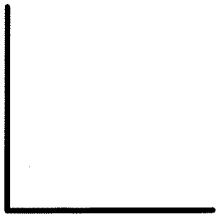
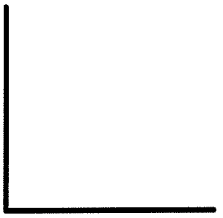
Naturalistic observation:

Pros	Cons

Correlation

Correlation:

Pros	Cons

Positive Correlation	Negative Correlation	No Correlation
		

What is the name for these graphs that demonstrate correlation?	

Correlational Coefficient

Correlational coefficient:

Simply stated, what does a correlational coefficient tell us?	*What range does a correlational coefficient have?*	*What should you remember in reference to positive and negative?*

Which correlational coefficient has a stronger relationship within the given sets?

-.70 or +.65	+.08 or +.33
+.62 or -.89	-.54 or +.21

The first thing to look at to determine the value of a correlational coefficient & why:	
The second thing to look at to determine the value of a correlational coefficient & why:	

Considerations for Correlations

Correlation ≠ causation:

Directionality problem:

Third variable problem:

Regression toward the mean:

Experimental Methodology

Experiment:

<u>What sets the experimental method apart from the other types of research methods?</u>

Elements of Experimentation

Experimental Group	**Control Group**
Independent Variable	**Dependent Variable**

Placebo:

Why would an experiment need to use a placebo?	

Considerations

Additional Variables

Placebo effect:

What negative effects can a placebo have?	

Confounding variable:

What are some examples of confounding variables?	

Random assignment:	
How is this different from a random sample? What is the purpose of random assignment? Is this only used in the experimental method?	
Bias	
Participant bias:	
What are some examples of participant bias?	
Experimenter bias:	
What are some examples of researcher bias?	
Single blind:	
Double blind:	
When is it appropriate to use one or the other?	

Statistical Reasoning

Descriptive Statistics	Inferential Statistics

Descriptive Statistics

Measures of Central Tendency

Mean:

Median:

Mode:

Which measure of central tendency is most impacted by outliers?	

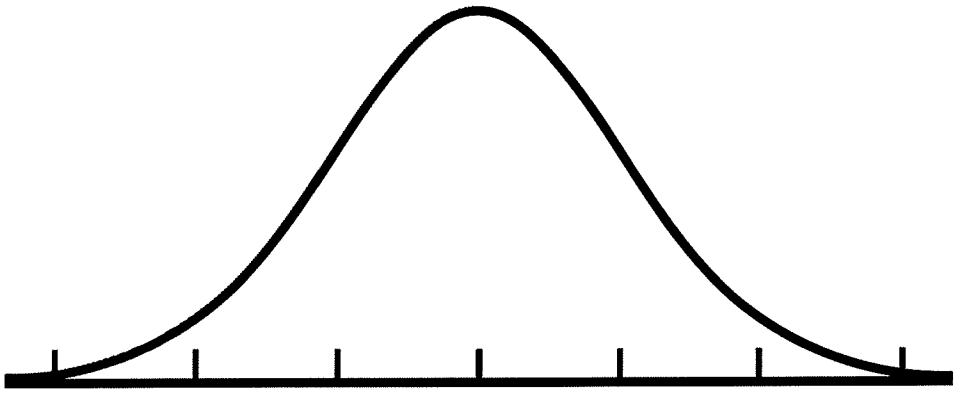
Measures of Variation

Range:

Standard deviation:

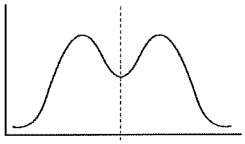
Explain standard deviation in a way that makes sense to you.	

Normal curve:



Percentile rank:

Explain percentile rank in a way that makes sense to you. Give an example if helpful.	

Skewness	
Bell Curve- Negative Skew	Bell Curve- Positive Skew
What should you be paying attention to when deciding what type of skew it is?	
Bimodal Distribution	
Bimodal distribution: 	
Give an example of a bimodal distribution.	
Inferential Statistics	
What factors influence whether data can be generalized?	
Statistical significance:	
What does statistical significance mean?	
Effect size:	
What does effect size communicate?	

Ethics in Research

Laboratory Setting	
What limitations and benefits does the laboratory setting have for research?	
Institutional Review Board	
Institutional Review Board:	
What is the importance of the Institutional Review Board?	
Ethical Guidelines	
Informed Consent	
Informed consent:	
Informed assent:	
Protection from Harm	
Protection from harm:	
Confidentiality	
Confidentiality:	
Debriefing	
Debriefing:	
Deception:	
Confederate:	