

Psychology Related Themes and Concepts for Statistics Projects

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Are people really good at multitasking? How many times have you heard someone say that they are good at multitasking? In what context did this occur (e.g., doing school work while watching television, texting while driving)? Are people really good at doing two or more things at one time or is our performance hindered by attempting to do more than one thing at a time? Conduct an experiment testing what cognitive psychologists call divided attention.

Does subliminal advertising work? If a company were to quickly (so quickly, you wouldn't notice it was there) flash a photo of their product during your favorite television show, would you be more likely to purchase their product? To what extent might ideas presented outside of our conscious awareness impact our behavior? Conduct an experiment related to cognitive psychology on the topic of priming (ideomotoring is a similar concept) on behavior.

Can thinking about yourself improve your memory? That is, if you are able to relate something that you learned in a class to an event in your life, will you be more likely to remember it at a later time? Does making the information more meaningful increase its memorability? Conduct an experiment testing the self-reference effect on memory.

How reliable are your memories? Can your memories be shaped or distorted by suggestions? Can the way a question is asked influence your memory? Can you "remember" things that never happened? Conduct an experiment to test reconstructive memory.

Imagine that the word *Green* was written in blue ink. Is it easier to read the word or name the color the word is written in? (If you need a better visualization, google "stroop effect.") How might our expectations about what we expect to see, influence our perceptions? What other types of expectations or predispositions might we have that influence our sight, hearing, taste, smell, or touch? Conduct an experiment testing a topic related to sensation and perception called a perceptual set.

Which is easier: completing a jigsaw puzzle with a photo of the entire puzzle in front of you or completing the puzzle without a picture present? How much does prior information affect our ability to perform tasks? Could prior information influence what we see, hear, taste, smell, or feel? Conduct an experiment testing concepts related to sensation and perception called bottom-up and top-down processing.

Are people happier when they have lots of choices or only a few choices? For example, would you be happier at a job if you received multiple offers or if you only received one offer? Would you be pleased with watching a television show if you have thousands of channel options or if you have ten channel options? To what extent does the number of choices we have influence our level of satisfaction with our selection? Conduct a positive psychology experiment to test the effects of the paradox of choice on happiness.

Does mindfulness reduce stress? By engaging in mindfulness activities, could people reduce their levels of stress? Could mindfulness be a useful tool for people living in stressful life situations or who have stressful occupations? Conduct an experiment related to positive and health psychology that tests the effects of mindfulness on stress reduction.

Can your mood influence whether or not you help someone in need? Are you more likely to help another person when you are in a good mood or a bad mood? Conduct an experiment to test what social psychologists refer to as the feel good-do good hypothesis.

Do labels influence how we perceive objects and people? If something is name brand lead to the perception that it is higher quality? Will people be more likely to purchase something that has a brand name label than a generic label? If a person belongs to a particular social group (e.g., has a mental illness, belongs to a certain religious group, has a disability, identifies as homosexual), does this influence how others perceive him or her? Conduct an experiment to test the social psychological topic of labeling on decisions and perceptions.

Do tangible rewards have an influence on how much a person enjoys an activity? If you are rewarded for something that you enjoy doing, does this mean that overtime you will enjoy that activity less? Do extrinsic rewards undermine intrinsic motivation? Conduct an experiment testing the effects of intrinsic and extrinsic motivation on task enjoyment or performance.

Did your grandmother ever tell you to “just smile, you’ll feel better!”? Might there be some truth to the idea that if you pretend to experience an emotion that you actually start to feel that way? Is it possible to “fake it until you make it?” Conduct an experiment testing the effects of the facial feedback hypothesis on emotion.

In survey research, does the way the participant is able to respond to questions influence the results of the study? For example, if you ask parents what the most important problem facing the educational system today and ask them to list their top three concerns, will their responses be different than if they had been asked to rank order a list of ten concerns about the educational system? Conduct an experiment testing a topic relevant to research methods in psychology about the effects of open-ended versus close-ended questions on results.

If we are rewarded for performing a task, does that make us more likely to repeat that task in the future? Conversely, if we are punished for engaging in a behavior, are we less likely to repeat that behavior later? What effects do rewards and punishments have on our behavior? Conduct a study that would test the effects of operant conditioning, a type of learning, on human behavior.

While watching a scary movie, do you notice that your heart starts to race when eerie music starts to play; after seeing a bolt of lightning, do you wait in anticipation for the sound of thunder? These are a few examples of associating one stimulus with another- creating a conditioned response. Conduct a study that would test the effects of classical conditioning, a type of learning, on human behavior.

How do drugs influence a person’s physiological reactions? While it may not be ethical to test how a person reacts to illicit substances, most college students drink caffeinated beverages (and caffeine is by definition a drug). Conduct a study that would be of interest to a physiological psychologist to test the effects of caffeine on physiological reactions, such as heart rate.

If you have other ideas or topics within psychology that are not included on this list, you are invited to talk with one of the professors in the psychology department; we may be able to help you find a resource needed to inspire your project. Have fun!

References

Below is a list of resources that can be used as inspiration for designing your own experiment for your statistics project. The list is arranged so that topics are presented in alphabetical order. Use the library resources to find the articles and consult the methods sections of the articles to help guide your project. You may also use the library resources to find your own references for your project.

Bottom-Up and Top-Down Processing

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Classical Conditioning

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Divided Attention

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Facial Feedback Hypothesis

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Feel Good-Do Good Hypothesis

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