

**AP Psychology Summer Assignment**  
**Due on the first day of class – Fall 2017**

Welcome to AP Psychology!

AP Psychology is the equivalent of a college or university Introduction to Psychology course where we will consider the systematic and scientific study of the behavior and mental processes of human beings and explore the question “How do psychologists think?” This is a survey course where we will explore the history of and approaches to psychology, research methods used in psychology, the biology of behavior, sensation and perception, states of consciousness, learning, cognition and memory, motivation and emotion, developmental psychology, personality, intelligence and testing, psychological disorders and treatment, and social psychology.

To get the most out of class time when school begins in the fall, all students must complete a five part summer assignment. **The assignment is due on August 22, 2017 (the first day of school, even if we do not have AP Psychology on that day) and each part (except the multiple choice questions in part 2, which must be brought to the first class) must be submitted to turnitin.com.** The class name on turnitin.com is AP Psychology 2017-2018, the class ID is 15304209, and the class enrollment password is EisenAPPsych.

Please read and follow all directions in this assignment in order to receive full credit.

During the summer, I will be available to answer questions by email at [ceisen@sdja.com](mailto:ceisen@sdja.com). However I will be out of the country from June 23 through July 15 and will only have occasional access to email.

**Part 1: Chapter 1 Psychology’s History and Approaches**

Obtain a copy of Myers Psychology for AP, **2<sup>nd</sup> edition**. You may purchase either the hard copy edition or the e-text. If you license the e-text version, please ensure that you have access through May 30, 2016. Please note that the e-text version requires Internet access at all times – the material cannot be downloaded.

1. Read Modules 1-3 in the textbook, Myers Psychology for AP, 2<sup>nd</sup> edition (pages 1-25).
2. Create a thorough outline of the modules. The outline must be typed in 11-point font, should be in outline format (and not contain complete sentences), and must be phrased in your own words, not copied word for word from the textbook. Post your outline to turnitin.com. Your outline may not be more than 50% identical to any source. Please check your originality report prior to submitting. Please bring a hard copy of your outline to the first day of class. **There will be a vocabulary quiz (bold and italics terms) on the first full class day.**

**Part 2 - Unit 1 Practice Multiple Choice and Free Response Questions**

1. Complete multiple-choice questions 1-15 on page 26-27. Type the question number, followed by your answer choice (letter) and an explanation as to why you chose that answer. Bring a hard copy of this part of the assignment to turn in on the first day of class.
2. Answer the following free-response question (use the rubric on page 28 as a guide):  
Adrian is often angry and regularly gets into fights at school. His father yelled at him every day when he was a young boy and left the family when Adrian was 9. He still has

nightmares about his father. Adrian likes school, but hasn't been doing very well and is known as the class clown.

Using the seven major modern approaches to psychology described in Unit 1, define each approach and apply each one to explain Adrian's behavior.

### **Part 3: Learning Strategies**

1. Read Module 31-7 (pages 322-324).
  - a. In your own words, describe the three strategies for remembering information and give one example (not from the book) of each.
  - b. Describe the spacing effect and give one example of when you either used it or didn't use it and the results.
  - c. What is the testing effect? Describe how can you incorporate this strategy into your own life for this class and others.

### **Part 4: Psychology Book - Reading and Essay**

Read one of the psychology-related books from the attached list below. Write an original essay that addresses all of the following questions:

What was the book about? Who wrote it?

What did you learn that you didn't previously know?

Why were you interested in reading this particular book?

Explain how the book relates to psychology.

Do you agree or disagree with the author's conclusions? Please explain and justify your answer.

After reading the book, is there anything you would like to learn more about?

The essay must be in paragraph form and should not include the questions. The paper must be typed in 11-point font, be double-spaced, and have 1" margins on all sides. Spelling, grammar and word choice all count!!

### **Part 5: Scientific American reading**

Read the attached Scientific American article: "Don't Take Notes with a Laptop" and answer the following questions:

1. Write a one sentence statement of the question being explored
2. Write a brief summary of the method used by the researchers (5 sentences maximum)
3. Describe the conclusions reached by the researchers (5 sentences maximum)
4. Do you agree with the conclusions? Why or why not? Be specific.

### **Book List:**

### **Experimental Psychology:**

- World as Laboratory: Experiments with Mice, Mazes, and Men by Rebecca Lemov
- Opening Skinner's Box: Great Psychological Experiments of the Twentieth Century by Lauren Slater
- Experiments with People: Revelations From Social Psychology by Robert P. Abelson, Kurt P. Frey, Aiden Gregg, etc.
- Living Walden Two: B.F. Skinner's Behaviorist Utopia and Experimental Communities by Hilke Kuhlmann

### **The Brain and Neuropsychology:**

- Mind Wide Open: Your Brain and the Neuroscience of Everyday Life by Steven Johnson
- Brainwashing: The Science of Thought Control by Kathleen Taylor
- Phantoms in the Brain: Probing the Mysteries of the Human Mind by V.S. Ramachandran and Sandra Blakeslee
- Head Cases: Stories of Brain Injury and Its Aftermath by Michael Paul Mason
- Why Beautiful People Have More Daughters: Evolutionary Psychologists Explain Why We Do What We Do by A.S. Miller
- Head Case by Dennis Cass
- Sway: The Irresistible Pull of Irrational Behavior by Ori Brafman and Rom Brafman
- Brain on Fire: My Month of Madness by Susannah Cahalan
- Incognito: The Secret Lives of the Brain by David Eagleman

### **Language, Intelligence and Cognition:**

- The Stuff of Thought: Language as a Window into Human Nature by Steven Pinker
- The First Word: The Search for the Origins of Language by Christine Kenneally
- Musicophilia: Tales of Music and the Brain by Oliver Sacks
- What is Intelligence?: Beyond the Flynn Effect by James R. Flynn
- IQ: A Smart History of a Failed Idea by Stephen Murdoch

### **Sensation and Perception:**

- The Gift: Extraordinary Experiences of Ordinary People by Sally Rhine Feather
- The Sense of Being Stared At: And Other Unexplained Powers of the Human Mind by Rupert Sheldrake
- The Head Trip: Adventures on the Wheel of Consciousness by Jeff Warren
- Extraordinary Knowing: Science, Skepticism, and the Inexplicable Powers of the Human Mind by Elizabeth Lloyd Mayer

### **Developmental Psychology:**

- Genie: a Scientific Tragedy by Russ Rymer
- As Nature Made Him: The Boy Who Was Raised as a Girl by John Colapinto
- See Jane hit: Why Girls Are Growing More Violent and What We Can Do About It by James Garbarino
- The Boy Who Was Raised As a Dog: And Other Stories from a Child Psychiatrist's notebook By Bruce D. Perry
- The Primal Teen: What the New Discoveries about the Teenage Brain Tell Us about Our Kids by Barbara Strauch
- Self-Made Man: One Woman's Journey into Manhood and Back by Norah Vincent

- Grand Theft Childhood: The Surprising Truth About Violent Video Games and What Parents can Do by Lawrence Kutner
- The Sexual Spectrum: Why We're All Different by Olive Skene Johnson

### **Psychological Disorders:**

- The Broken Mirror: Understanding and Treating Body Dysmorphic Disorder by Katharine A. Phillips
- Devil in the Details: Scenes from an Obsessive Girlhood by Jennifer Taig
- Divided Minds: Twin Sisters and Their Journey Through Schizophrenia by Pamela Spiro Wagner
- A Fractured Mind: My Life with Multiple Personality Disorder by Robert B. Oxnam
- Sickened: The True Story of a Lost Childhood by Julie Gregory
- Compulsive Acts: A Psychiatrist's Tales of Ritual and Obsession by Elias Aboujaoude
- Shyness: How Normal Behavior Became a Sickness by Christopher Lane
- Going Postal: Rage, Murder, and Rebellion: From Reagan's Workplaces to Clinton's Columbine by Mark Ames
- An Unquiet Mind: A Memoir of Moods and Madness by Kay Redfield Jamison
- Perfect Chaos: A Daughter's Journey to Survive Bipolar and a Mother's Struggle to Save Her by Linea Johnson and Cinda Johnson

### **Social Psychology:**

- Odd Girl Out: The Hidden Culture of Aggression in Girls by Rachel Simmons
- Emotions Revealed: Recognizing Faces and Feelings to Improve Communication and Emotional Life by Paul Ekman
- A World of Gangs: Armed Young Men and Gangsta Culture by John M. Hagedorn
- The Lucifer Effect: Understanding How Good People Turn Evil by Philip Zimbardo
- Fame: The Psychology of Stardom by Andre Ewans
- Take Back Your Life: Recovering from Cults and Abusive Relationships by Janja Lalich
- Abducted: How People Come to Believe They Were Kidnapped by Aliens by Susan A. Clancy

scientificamerican.com

[http://www.scientificamerican.com/article/a-learning-secret-don-t-take-notes-with-a-laptop/?&WT.mc\\_id=SA\\_MB\\_20140604](http://www.scientificamerican.com/article/a-learning-secret-don-t-take-notes-with-a-laptop/?&WT.mc_id=SA_MB_20140604)

## **A Learning Secret: Don't Take Notes with a Laptop**

The old-fashioned way works better.

"More is better." From the number of gigs in a cellular data plan to the horsepower in a pickup truck, this mantra is ubiquitous in American culture. When it comes to college students, the belief that more is better may underlie their widely-held view that laptops in the classroom enhance their academic performance. Laptops do in fact allow students to do more, like engage in online activities and demonstrations, collaborate more easily on papers and projects, access information from the internet, and take more notes. Indeed, because students can type significantly faster than they can write, those who use laptops in the classroom tend to take more notes than those who write out their notes by hand. Moreover, when students take notes using laptops they tend to take notes verbatim, writing down every last word uttered by their professor.

Obviously it is advantageous to draft more complete notes that precisely capture the course content and allow for a verbatim review of the material at a later date. Only it isn't. New research by Pam Mueller and Daniel Oppenheimer demonstrates that students who write out their notes on paper actually learn more. Across three experiments, Mueller and Oppenheimer had students take notes in a classroom setting and then tested students on their memory for factual detail, their conceptual understanding of the material, and their ability to synthesize and generalize the information. Half of the students were instructed to take notes with a laptop, and the other half were instructed to write the notes out by hand. As in other studies, students who used laptops took more notes. In each study, however, those who wrote out their notes by hand had a stronger conceptual understanding and were more successful in applying and integrating the material than those who used took notes with their laptops.

What drives this paradoxical finding? Mueller and Oppenheimer postulate that taking notes by hand requires different types of cognitive processing than taking notes on a laptop, and these different processes have consequences for learning. Writing by hand is slower and more cumbersome than typing, and students cannot possibly write down every word in a lecture. Instead, they listen, digest, and summarize so that they can succinctly capture the essence of the information. Thus, taking notes by hand forces the brain to engage in some heavy "mental lifting," and these efforts foster comprehension and retention. By contrast, when typing students can easily produce a written record of the lecture without processing its meaning, as faster typing speeds allow students to transcribe a lecture word for word without devoting much thought to the content.

To evaluate this theory, Mueller and Oppenheimer assessed the content of notes taken by hand versus laptop. Their studies included hundreds of students from Princeton and UCLA, and the lecture topics ranged from bats, bread, and algorithms to faith, respiration, and economics. Content analysis of the notes consistently showed that students who used laptops had more verbatim transcription of the lecture material than those who wrote notes by hand. Moreover, high verbatim note content was associated with lower retention of the lecture material. It appears that students who use laptops can take notes in a fairly mindless, rote fashion, with little analysis or synthesis by the brain. This kind of shallow transcription fails to promote a meaningful understanding or application of the information.

If the source of the advantage for longhand notes derives from the conceptual processes they evoke, perhaps instructing laptop users to draft summative rather than verbatim notes will boost performance. Mueller and Oppenheimer explored this idea by warning laptop note takers against the tendency to transcribe information without thinking, and explicitly instructed them to think about the information and type notes in their own words. Despite these instructions, students using laptops showed the same level of verbatim content and were no better in synthesizing material than students who received no such warning. It is possible these direct instructions to improve the quality of laptop notes failed because it is so easy to rely on less demanding, mindless processes when typing.

It's important to note that most of the studies that have compared note taking by hand versus laptop have used immediate memory tests administered very shortly (typically less than an hour) after the learning session. In real classroom settings, however, students are often assessed days if not weeks after learning new material. Thus, although laptop users may not encode as much during the lecture and thus may be disadvantaged on immediate assessments, it seems reasonable to expect that the additional information they record will give them an advantage when reviewing material after a long delay.

Wrong again. Mueller and Oppenheimer included a study in which participants were asked to take notes by hand or by laptop, and were told they would be tested on the material in a week. When participants were given an opportunity to study with their notes before the final assessment, once again those who took longhand notes outperformed laptop participants. Because longhand notes contain students' own words and handwriting, they may serve as more

effective memory cues by recreating the context (e.g., thought processes, emotions, conclusions) as well as content (e.g., individual facts) from the original learning session. These findings hold important implications for students who use their laptops to access lecture outlines and notes that have been posted by professors before class. Because students can use these posted materials to access lecture content with a mere click, there is no need to organize, synthesize or summarize in their own words. Indeed, students may take very minimal notes or not take notes at all, and may consequently forego the opportunity to engage in the mental work that supports learning.

Beyond altering students' cognitive processes and thereby reducing learning, laptops pose other threats in the classroom. In the Mueller and Oppenheimer studies, all laptops were disconnected from the internet, thus eliminating any disruption from email, instant messaging, surfing, or other online distractions. In most typical college settings, however, internet access is available, and evidence suggests that when college students use laptops, they spend 40% of class time using applications unrelated to coursework, are more likely to fall off task, and are less satisfied with their education. In one study with law school students, nearly 90% of laptop users engaged in online activities unrelated to coursework for at least five minutes, and roughly 60% were distracted for half the class.

Technology offers innovative tools that are shaping educational experiences for students, often in positive and dynamic ways. The research by Mueller and Oppenheimer serves as a reminder, however, that even when technology allows us to do more in less time, it does not always foster learning. Learning involves more than the receipt and the regurgitation of information. If we want students to synthesize material, draw inferences, see new connections, evaluate evidence, and apply concepts in novel situations, we need to encourage the deep, effortful cognitive processes that underlie these abilities. When it comes to taking notes, students need fewer gigs, more brain power.