

*APA citation of journal article:*

### **The Basics:**

1. What was the broad question being asked by this research project? What was the specific question being asked by this research project?
  - a. Summarize the background information on the research topic in three sentences. There has been research into mind wandering for people. Mind wandering rate vary across situations. However, the research question is can people modulate their mind wandering in anticipation for something?
  - b. What is the gap in the literature identified by the researchers? What question(s) are they trying to answer? What is their hypothesis and what should happen if the author's hypothesis is true? There is research into memory, learning, attention, creativity and more. Although, this is unique because of the anticipation aspect for an easy task.
  - c. What are alternative hypotheses?

Alternative hypotheses are mind wandering rates vary across the level of difficulty of the task. Or from moment to moment showing people can flexibly manipulate their mind wandering.

2. What experiments were done to test the hypothesis or investigate the research question?
  - a. Explain the task design – what are participants instructed to do and what is being measured? Think about the independent and dependent variables.

A virtual clock was set up on a screen and participants had to react when the clock hand struck 12:00. Then they were asked if their thoughts were on task, intentionally mind wandering, or intentionally mind wandering.

3. What evidence supports each of the conclusions?
  - a. Before you read the discussion, summarize the main findings and link each one back to the research question(s). How does each result inform the hypothesis?

Mind wandering can be due to the amount of focus needed for a task, and the more difficult the task, the less mind wandering. Since we need to focus on a difficult task, we don't have the capacity to wander and need to focus. If the task is easy, we don't need to use all our resources on it and can allow for mind wandering.

4. What are the major conclusions?
  - a. What do the results add to the field? How do the researchers interpret their findings? Summarize any limitations identified by the researchers.

Mind wandering is a result of allocating resources. If a task is difficult, then people will focus more because it is more challenging. As opposed, If it is easy they don't need to focus as much. However, that is not to say that mind wandering causes performance costs in difficult tasks, as long as the resources are allocated correctly.

### **The Critique:**

1. Is the paper well written? How do you know? For week 2 & later, use this space to practice headlines & summaries of the articles via tweets.
2. Do the conclusions seem logical given the data processed? Why or why not? Another way of thinking about this: do the results adequately support the conclusions that are drawn? Are there alternative explanations for the findings? What inferences about the hypotheses and questions can be made based on these results?

The conclusions match the claims, and we can know this from the data. We know that mind wandering occurs with easier tasks, and is allowed since we don't have to focus as much for the task being easy.

3. Are the conclusions important? How do you think this relates to everyday behavior?

This relates to everyday behavior because knowing this information can help us better focus on tasks and know why our minds wander.

4. What were the best aspects of the research presented, and how could the research be improved? Name at least one way to improve the experiment.

The best aspect was in the design, but a better way would be to measure how anticipation plays into an easy and hard task.

5. How would you follow-up this experiment or study?

Try to reproduce results so that we are sure these are accurate

**Additional Resources:** What are the basic concepts that you need to know to understand the science presented in your paper? What other information or resources would help you better understand the paper? This is helpful to consider for your science communication pieces.

Study design is the most important that allows the audience to understand the experiment and its goals. Other information that would help would be descriptions and explanations of the charts and numbers

### **Further Questions:**

Write at least five comments or questions about the article to discuss with the class.

1. How does anticipation play into difficult and easy tasks?
2. How do we know that we can mind wander if resources are allocated properly?
3. How do we even allocate resources properly to avoid performance costs for mind wandering?
4. Is mind wandering a bad thing?
5. Why is the data confusing?

