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## Interfering with the Consolidation of Memory

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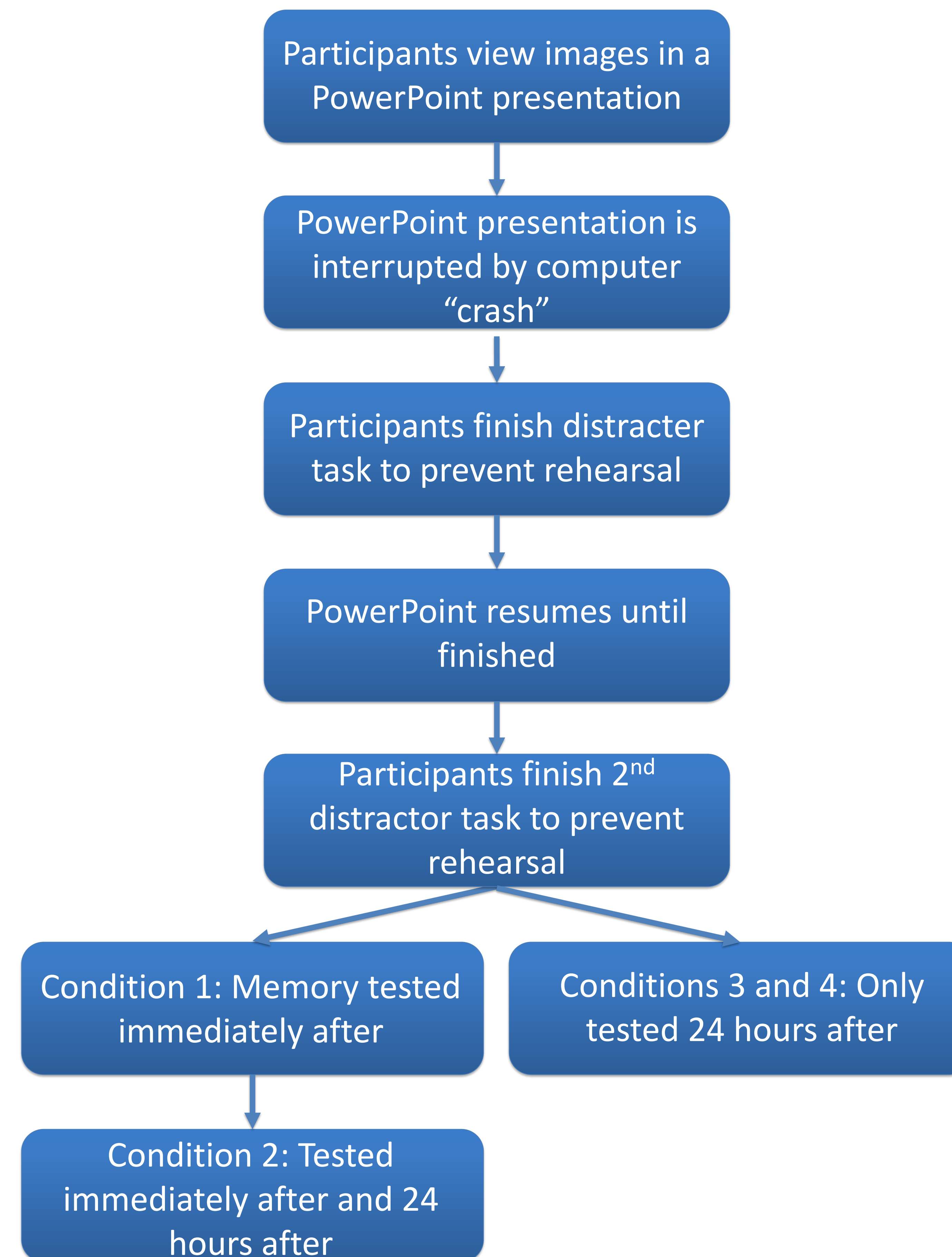
## Background

- **Memory:** Memory research consistently highlights the importance of sleep and its positive effects on memory (Rasch & Born, 2013).
- **Consolidation:** During sleep, memories acquired earlier are processed at a deeper level and strengthened by creating associations with previously-stored information (Rasch & Born, 2008). This process helps better integrate new information into existing long-term memory storage systems. Research indicates that the consolidation process can also prevent the effects of interference during memory retrieval (Robertson, 2012).
- **Present Study:** The present study was designed to examine the effects of an interruption during encoding on later memory consolidation and recognition when memory is tested.

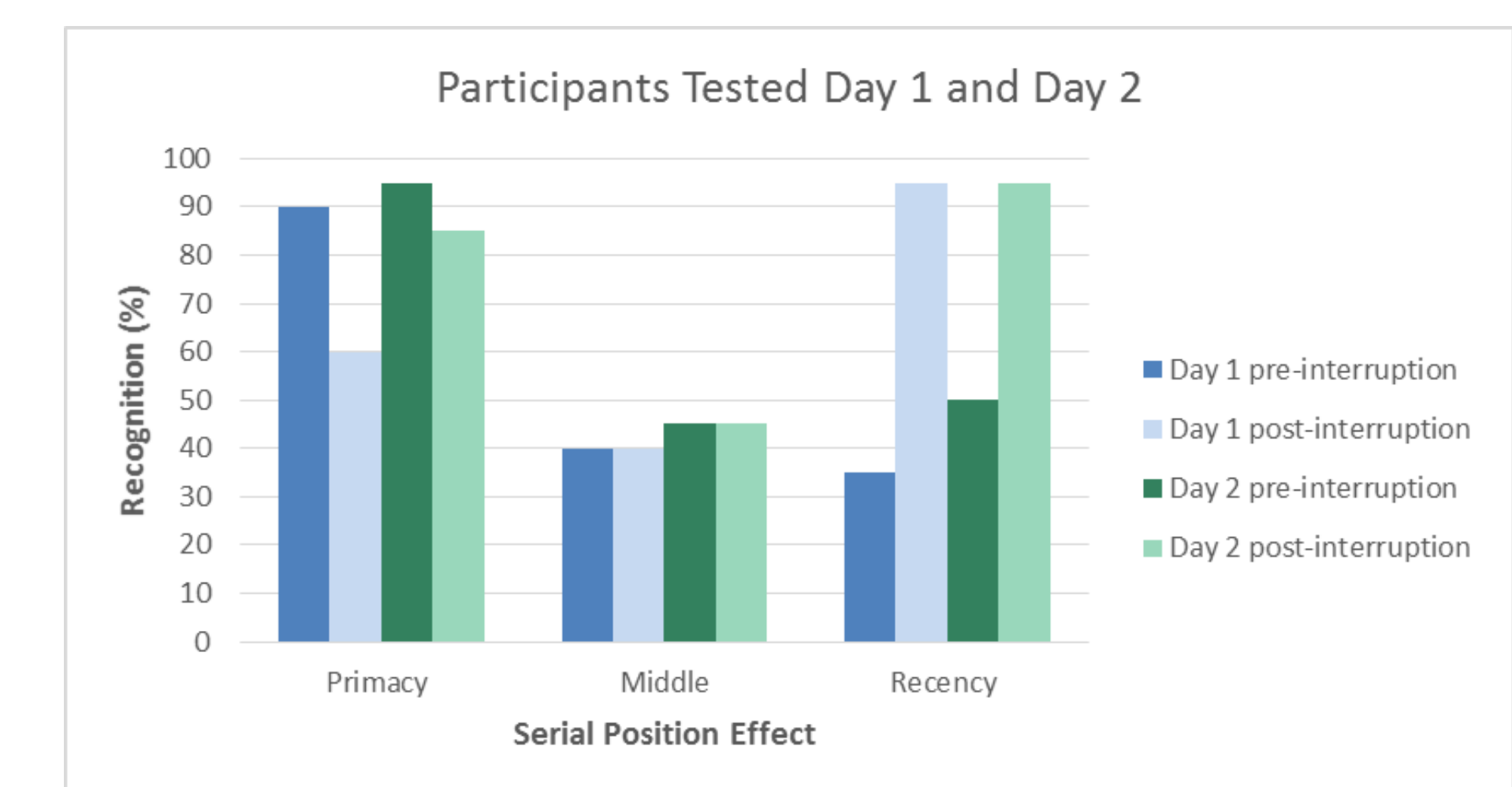
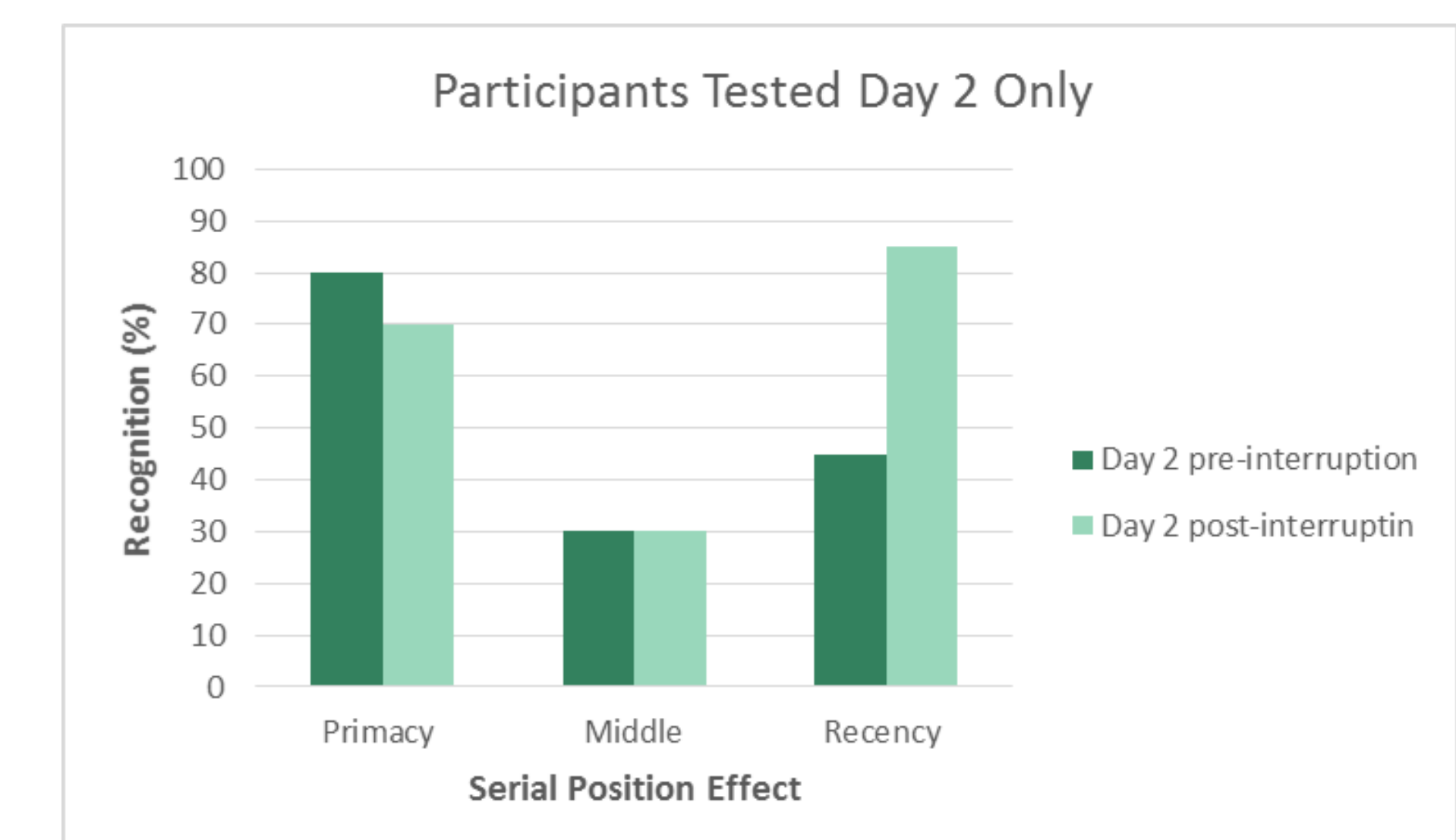
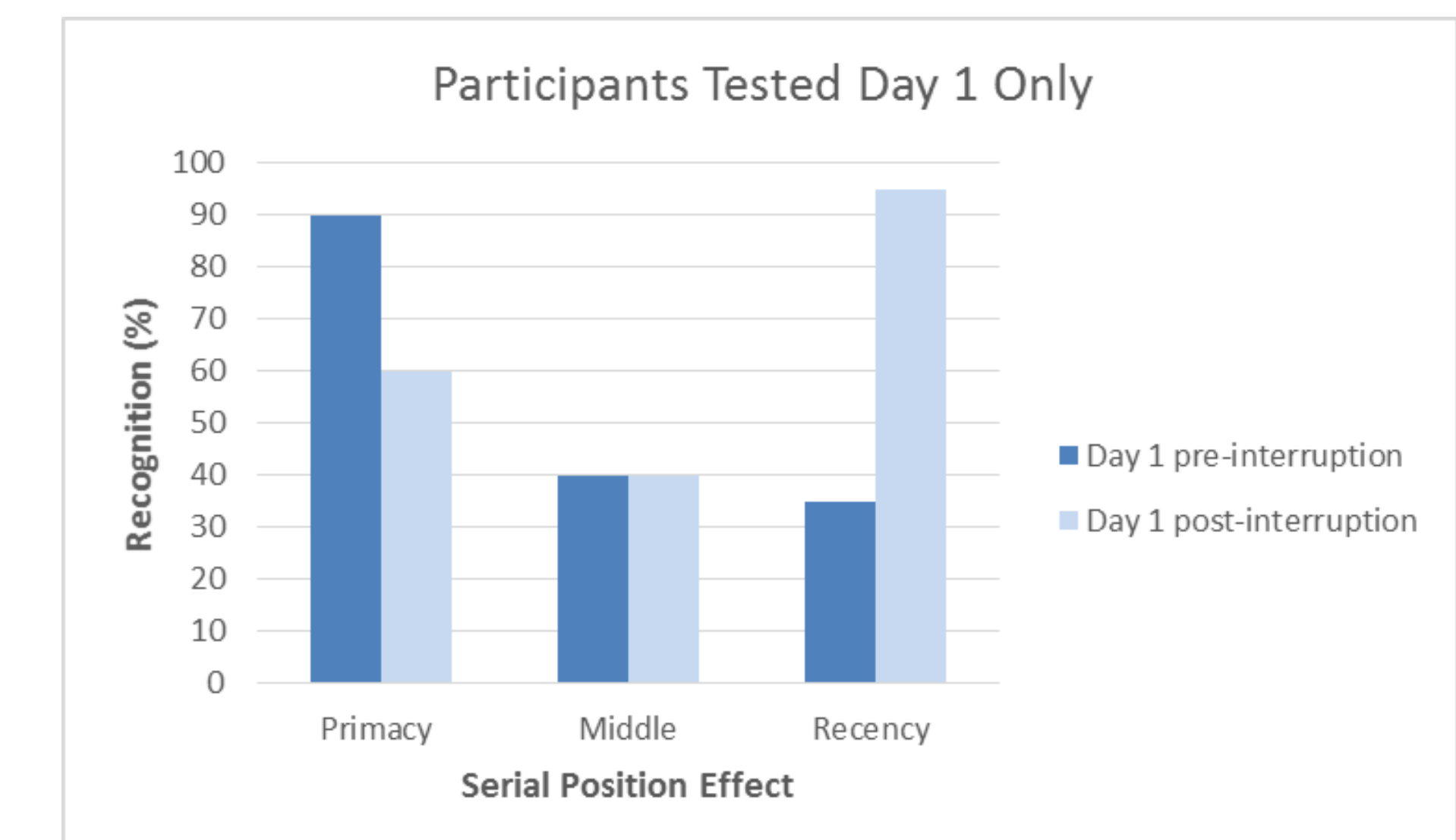
## Hypotheses

- We expect that memory will be better for pictures that appeared near the beginning (primacy effect) and the end (recency effect) of the sequence of pictures presented in the encoding portion of the experiment. However, pictures that were presented just prior to the interruption would be less likely to be remembered.
- We also expect that participants tested on the second day of experimentation will be less confident in their memory of these pictures, but will be just as accurate as, if not more accurate, than those participants tested on the first day of the experiment. This is likely due to the additional effects of consolidation expected to take place during sleep.

## Methods



## Expected Results



## References

- Rasch, B., & Born, J. (2008). Reactivation and consolidation of memory during sleep. *Current Directions in Psychological Science*, 17, 188-192. Retrieved April 6, 2016.
- Rasch, B., & Born, J. (2013). About sleep's role in memory. *Physiological Review*, 93, 681-766. Retrieved April 6, 2016.
- Robertson, E. M. (2012). New insights in human memory interference and consolidation. *Current Biology*, 22(2), 66-71. Retrieved April 6, 2016/

