

Memory worksheet essay sample



**ASSIGN
BUSTER**

Using the text, *Cognition: The Thinking Animal*, the University Library, the Internet, and/or other resources, answer the following questions. Your response to each question should be at least 150 words in length.

What is primary memory? What are the characteristics of primary memory?

Primary memory, also known as short-term memory briefly encodes, manipulates, and holds information either forgotten or transferred to secondary (long-term) memory. Freudian psychology refers to primary memory as the conscious mind. One characteristic of primary memory is how forgetting occurs. Forgetting occurs because of interference and decay. Most of forgetting from primary memory occurs because of proactive and retroactive interference. When older learning interferes with new learning proactive interference occurs (Willingham, 2007). When later learning interferes with earlier learning retroactive interference occurs (Willingham, 2007). Decay contributes to forgetting because it is a spontaneous decomposition of the representation over time (Willingham, 2007).

Another characteristic of primary memory is the format in which it codes information. It codes material in three ways, which are visual-spatial, acoustic, and semantic. Evidence points to a primary memory component that can store tactile memories (Willingham, 2007). One last characteristic of primary memory is the amount of information that it can hold, or the capacity of primary memory (Willingham, 2007). Studies show that the capacity of primary memory is between five and nine digits, therefore an individual usually can recall five to nine digits relayed to him or her (Willingham, 2007). It appears that primary memory has limitations of two seconds of acoustic code and four of visual-spatial objects. Semantic-based

memory is quite flexible because of chunking, which appears to increase primary memory's capacity because secondary memory encodes through semantics.

What is the process of memory from perception to retrieval? What happens when the process is compromised?

The process of memory from perception to retrieval starts when material comes into an individual's memory from the environment. Material perceived in the environment goes through a buffer called sensory memory, which has an enormous capacity (Willingham, 2007). This material enters primary memory, which is a hypothetical buffer that briefly holds and manipulates information (Willingham, 2007). Primary memory encodes information into secondary memory because it either brings an emotional response because it relates to other things already know because of the attention given to remember, or because of repetition (Willingham, 2007). Retrieval refers to retrieving stored information. Retrieved information must go from secondary memory to primary memory to be available for use by cognitive processes. A compromise in the process makes it very difficult to trust the memory completely, therefore an individual may wonder if that memory occurred exactly as he or she remembers. Also the information may not be as detailed or an individual may confuse one memory with another memory.

Is it possible for memory retrieval to be unreliable? Why or why not? What factors may affect the reliability of one's memory?

It is possible for memory retrieval to be unreliable. Retrieval does not always work as perfectly as individual wishes, and retrieval does not work the same

way every time. If certain cues are not available at that moment, those cues will not help and memory will be lost (Willingham, 2007). Therefore, the retrieval of a memory may not occur because the cues for retrieval differ on the two retrieval attempts (Willingham, 2007). Using cues is detrimental in memory retrieval. Encoding is also detrimental and retrieval is more reliable when trying to remember. Memory is better or more reliable when the physical context is the same at encoding and retrieval (Willingham, 2007). Therefore, retrieval is more reliable when an individual is trying to remember a certain subject in the same physical place where encoding of the memory occurred, or in the same situation or same context.

REFERENCES

Willingham, D. T. (2007). *Cognition: The thinking animal* (3rd ed.). Upper Saddle River, NJ: Pearson/Prentice Hall.