

MULTISTORE MEMORY MODEL

Explain	Evaluate
<p>Is a representation of how memory is stored in 3 different stores: the sensory register, the short term memory and the long term memory. The model also describes how information is transferred between stores, remembered and forgotten.</p> <p>Although this model created by <b>Atkinson and Shiffrin</b> is simplistic, it demonstrated the first steps in scientifically testing memory.</p> <p><u>The sensory register</u>: retrieves information from the environmental stimuli by the 5 senses, due to the 5 senses the sensory register is not 1 unitary store. The 2 main stores the sensory register consists of is iconic (storing visual info) and echoic (storing auditory info). The sensory register has a very high capacity which info constantly being retrieved by the senses, however the duration this info stays is very small, around 0.5 seconds. For the information to be transferred to the STM, the stimuli must be paid attention to.</p> <p><u>STM</u>: this component stores information from events in the present or immediate past. The capacity of the STM is around 7 (plus or minus 2) – Miller, the duration is around 30 seconds. In the STM information is coded acoustically (Baddeley). for information to remain in the STM it needs to be rehearsed. To be transferred into the LTM the information requires prolonged maintenance rehearsal. If this process is not done, then the information will be forgotten.</p> <p><u>LTM</u>: this component stores information from the distant past, it is stated that this store had an unlimited capacity and duration. The information is coded semantically as established by Baddeley. In order to remember the information it has to be transferred back to the STM in a process called retrieval.</p>	<p>P: One evaluation point of the multi-store model is the supporting evidence provided by <b>Murdock</b>. In his study he gave participants a list of words in 2 second intervals, finding a pattern of a serial position curve due to the primacy-recency effect. The recency effect supports the existence of the STM as the last words are remembered due to its storage in the STM store lasting around 30 seconds, whereas the primacy effect supports the existence of the LTM as the first words are remembered due to the p’s capability of rehearsing the words in order to transfer it into the LTM. This a strength of the multistore model as Murdock’s evidence supports the existence of both the STM and the LTM, adding reliability to the multi-store model.</p> <p>C: Furthermore, the evidence by Murdock can be substantiated by the scientific evidence conducted by <b>Beardsley</b> who found that the pre-frontal cortex was active when the STM was engaged but not when the LTM was, instead <b>Squire</b> found that the hippocampus as active when the LTM was engaged. This is a strength of the multi-store model as it adds credibility to the theory due to the scientific and objective nature of the brain scanning techniques used in these pieces of research.</p> <p>CC: In contrast, although this evidence supports the existence of the STM, it does not investigate or analyse whether there is more than one store in the STM. <b>Shallice and Warrington</b> found through their study that the STMS is not a unitary store as KF was able to recall digit that he read himself better than the digit which were read to him, suggesting there are at least 2 stores in the STM, visual and auditory. This is a weakness of the multi-store model as it doesn’t incorporate the ideas of the existence of multiple stores within the STMS.</p> <p>P: Another evaluation point of the multi-store model is the face validity of the concept of rehearsal, for example, it is well known that during exam preparation information is remembered through the consistent repetition of information (maintenance rehearsal). This is a strength of the multi-store model as real life examples such as revision can be used to substantiated the need for rehearsal of information.</p> <p>C: On the other hand, psychologists such as <b>Craik and Watkins</b> have argued that it is the type of rehearsal which results in whether the information is transferred into the LTM, not the amount of time it is repeated as advocated by the multi-store model. Craik and Watkins instead state that it is elaborate rehearsal which allows information to be transferred into the LTM, not maintenance rehearsal. This is a weakness of the Multi-store model as elaborative rehearsal is not included in the model, therefore casting doubt on the model.</p> <p>C: Moreover, some psychologists have argued that the emphasis on rehearsal is overstated, as some information transfers directly into the LTM without the need for rehearsal. This is a disadvantage of the multi-store model as this concept is not incorporated in the model, casting doubt upon it as it doesn’t explain this type of memory.</p>