

**Outline and evaluate the Working Memory Model**

*(12 marks)*

The Working Memory Model (WMM) was proposed by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in 1974. The WMM arose \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, specifically of the STM being \_\_\_\_\_\_\_\_\_. The WMM suggests that short-term memory is an active store made up of three different interacting components: central \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, phonological loop and the visuo-spatial sketchpad.

The central executive is the supervisory component, it has responsibility for coordinating the activity required to complete more than one task. The central executive can process information from any one of the five senses but has a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ capacity and so delegates information to its two \_\_\_\_\_\_\_ systems: the phonological loop and the visuo-spatial sketchpad. The phonological loop is responsible for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ information (including written words and numbers). The phonological loop is divided into the phonological store and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ process. The phonological store, AKA the ‘inner \_\_\_\_’ is responsible for holding auditory information where as the Articulatory process, AKA the ‘inner voice’ is a verbal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ loop which prepares the words were are about to speak and turns written information into acoustic in order to be processed by the phonological loop. Finally the visuo-spatial sketchpad, AKA the ‘inner eye’ is responsible for holding visual and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ material (which are what something looks like and the relationship between two items respectively).

Baddeley and Hitch recognise the LTM as being a passive store that holds information in preparation of it being used by the STM, but perhaps the most important aspect of the WMM is that the model allows for an individual to complete two tasks simultaneously, provided that the tasks are using \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ parts of the WMM.

There is also \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ evidence to support the WMM. This means that the different components of the WMM are supported physical evidence. For example, PET scans have shown different areas of the brain are used for visual and verbal tasks – corresponding to the PL and VSS. This is a strength because is supports the idea of the separate WMM components, even to the end that they might even be in physically different areas of the \_\_\_\_\_\_\_\_\_\_\_.

There is evidence to support the WMM idea that STM is not unitary. This means that different short-term memories are held in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ stores/places. For example, KF only damaged part of his STM (verbal) but his visual and \_\_\_\_\_\_\_\_\_\_\_\_ memories were unaffected. This is a strength because KF supports the idea of STM not being unitary because he only damaged part of his STM.

However, a criticism of the WMM is that it fails to account for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This means that the WMM cannot explain why people are able to process music differently to other acoustic material. For example, Berz showed that participants can listen to music and successfully complete another acoustic task. This is problematic as the WMM would suggest that those combination of tasks are not possible, suggesting that there might be more to memory than the WMM can account for.



**Outline and evaluate the Working Memory Model**

**Teacher’s copy**

*(12 marks)*

The Working Memory Model (WMM) was proposed by Baddeley & Hitch in 1974. The WMM arose from criticisms of the MSM, specifically of the STM being unitary. The WMM suggests that short-term memory is an active store made up of three different interacting components: central executive, phonological loop and the visuo-spatial sketchpad.

The central executive is the supervisory component, it has responsibility for coordinating the activity required to complete more than one task. The central executive can process information from any one of the five senses but has a limited capacity and so delegates information to its two slave systems: the phonological loop and the visuo-spatial sketchpad. The phonological loop is responsible for auditory information (including written words and numbers). The phonological loop is divided into the phonological store and the articulatory process. The phonological store, AKA the ‘inner voice’ is responsible for holding auditory information where as the Articulatory process, AKA the ‘inner voice’ is a verbal rehearsal loop which prepares the words were are about to speak and turns written information into acoustic in order to be processed by the phonological loop. Finally the visuo-spatial sketchpad, AKA the ‘inner eye’ is responsible for holding visual and spatial material (which are what something looks like and the relationship between two items respectively).

Baddeley and Hitch recognise the LTM as being a passive store that holds information in preparation of it being used by the STM, but perhaps the most important aspect of the WMM is that the model allows for an individual to complete two tasks simultaneously, provided that the tasks are using different parts of the WMM.

There is also physiological evidence to support the WMM. This means that the different components of the WMM are supported physical evidence. For example, PET scans have shown different areas of the brain are used for visual and verbal tasks – corresponding to the PL and VSS. This is a strength because is supports the idea of the separate WMM components, even to the end that they might even be in physically different areas of the BRAIN.

There is evidence to support the WMM idea that STM is not unitary. This means that different short-term memories are held in different stores/places. For example, KF only damaged part of his STM (verbal) but his visual and acoustic memories were unaffected. This is a strength because KF supports the idea of STM not being unitary because he only damaged part of his STM.

However, a criticism of the WMM is that it fails to account for musical memory. This means that the WMM cannot explain why people are able to process music differently to other acoustic material. For example, Berz showed that participants can listen to music and successfully complete another acoustic task. This is problematic as the WMM would suggest that those combination of tasks are not possible, suggesting that there might be more to memory than the WMM can account for.