Describe and evaluate the multi-store model of memory. (25 marks)

The multi-store model of memory (MSM) was suggested by Atkinson & Shriffin (1968).

![Diagram of the multi-store model of memory]

It is a structural model, which suggests that memory is composed of three stores: Sensory memory store, Short Term Memory Store and Long Term Memory Store.

The sensory memory store is where information from the sensory organs such as the eyes (sight, sound, smell, touch and taste) is stored for a very short amount of time. This store has very limited capacity as our senses are constantly bombarded with information – most of which is useless to us – and thus is lost. Information only stays in sensory memory for less than a second before it is transferred when attention is used – or lost if otherwise.

Information is transferred from sensory memory to STM through attention, in order for us to truly process sensory information, we must pay attention – so that the visual and audio information is not lost in the background of other stimuli. The STM store is a static store which retains a sonic and visual information long enough for us to use it (roughly 15-30 seconds unless rehearsed). It is here that information can remain through maintenance rehearsal to be transferred to long-term memory through elaborative rehearsal. Information is transferred from STM to LTM through elaborative rehearsal, i.e. giving a list of arbitrary numbers meaning so it can be remembered. The LTM store is a static store which permanently retains rehearsed information, it has no limited capacity to speak of, but it is possible for information to be lost during retrieval.

STM and LTM have been found to differ in terms of encoding, capacity and duration. Peterson and Peterson (1959) used trigrams (3 letters that did not form words) to test short term recall of participants, except that they prevented them from rehearsing by asking them to count backwards in threes or fours from a specified random number until they saw a red light appear - this is known as the Brown-Peterson technique. They found that when rehearsal was prevented, the duration of short term memory is 18-30 seconds, the capacity is 7 + or -2 chunks of information.

Whereas in LTM, Bahrick et al.’s (1975) study, nearly 400 Americans, who had graduated from high school from 1-50 years previously, were shown photographs from their high-school yearbook. Some were given the names of people and asked to match a name with a photograph (recognition memory). Others were asked to try and remember names (recall memory). They found that whilst recognition accuracy declined over time, even those who left school nearly fifty years ago were 60%