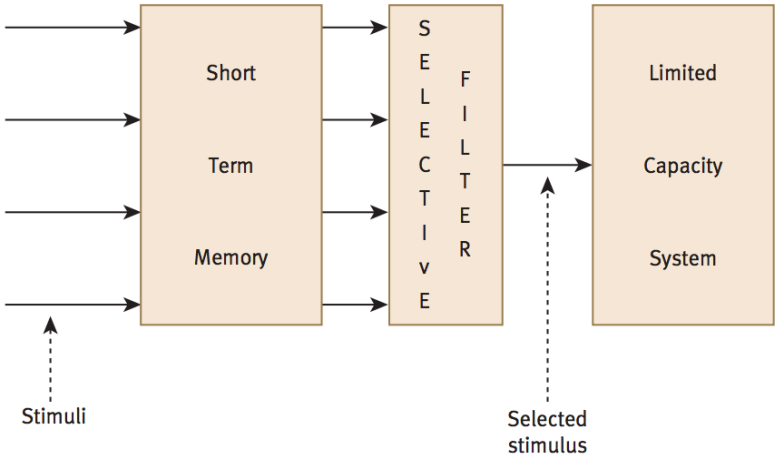
Name: Date:

5.2 Notes #2 IB SEHS

5.2.6 Discuss the relationship between selective attention and memory

- Given that our STM has a _____ capacity, we have a problem when trying to deal with all of the information in our _____.
- The limitation is so great that some _____ believe that we can only deal with one thing at a time; this is called _____ channel theory
- Others have argued that we can deal with more than one _____ of information at a time if the tasks are dissimilar, for example, running down the court _____ a basketball while at the same time making a _____ as to whether to pass or shoot.
    - Running with the ball occupies a _____ part of the brain to making the decision therefore the two tasks will not _____ one another.
    - The way we overcome this limited capacity is by the use of _____ **attention**.
- **Selective attention refers to the _____ focusing on relevant information while ignoring irrelevant information.**
- All information enters the _____, but we only attend to the selected stimuli. Unselected stimuli are filtered out but selected _____ are compared to information stored in LTM. This allows us to make decisions on what action to take.



- While selective _____ takes place stimuli being chosen for processing after entering STM, we can also make _____ on what to process before the information enters STM.
- Past experience of similar situations allows the _____ to search the appropriate areas of the environment for _____ information.
- Sometimes attention is _____, however. A sudden loud noise or a flash of bright light will attract our attention probably as a _____ safety factor.

5.2.7 Compare different methods of memory improvement

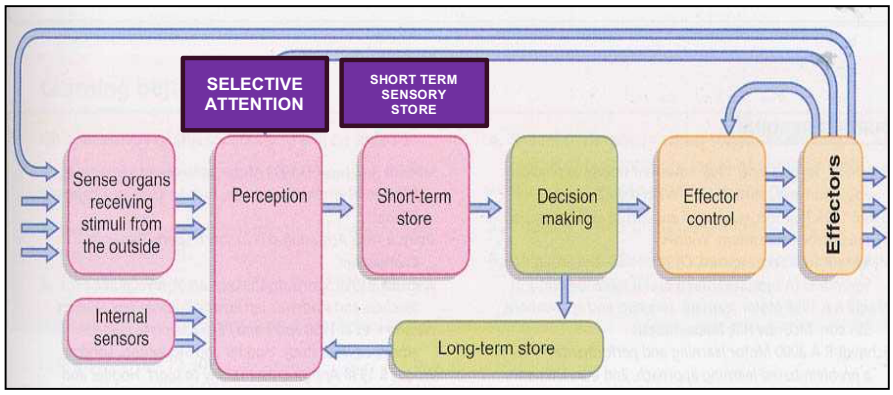
There are other strategies to help with _____ and retrieval for _____ learning, skill acquisition practice or teaching/coaching skills.

Outline the following:

- action words -
- brevity -

- clarity –
- organization -
- association –
- practice -

RECAP – SA vs SM

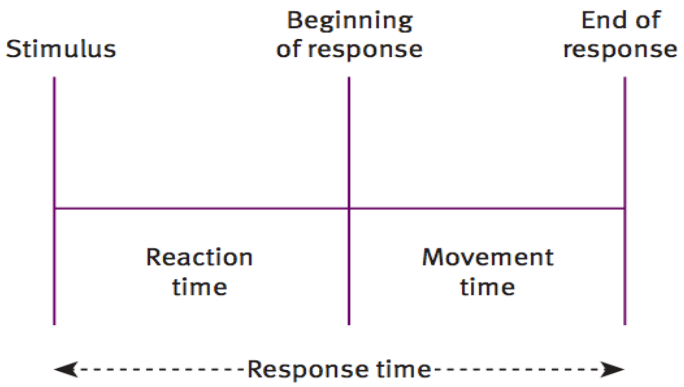


- Selective attention ‹SA› operates in the short term sensory store ‹STSS›
- Only the relevant information is passed to the short-term memory ‹STM› where it is held for several seconds
- Information selected to the STM can be determined through previous experience and information in the LTM
- SA ensures that information overload does not occur and prevents confusion as the brain would not be able to cope with streams of information
- SA is very important when accuracy/fast responses are required
- A filtering mechanism operates, which separates the relevant information from the irrelevant ‹noise› information so that athletes concentrate on one cue/stimulus ‹for example the ball, position of player in a game of tennis› to the exclusion of others
- SA can be improved by learning through past experience/practice/coaching which improves a person's anticipation/interaction with long-term memory/memory trace

5.2.8 Define the term response time

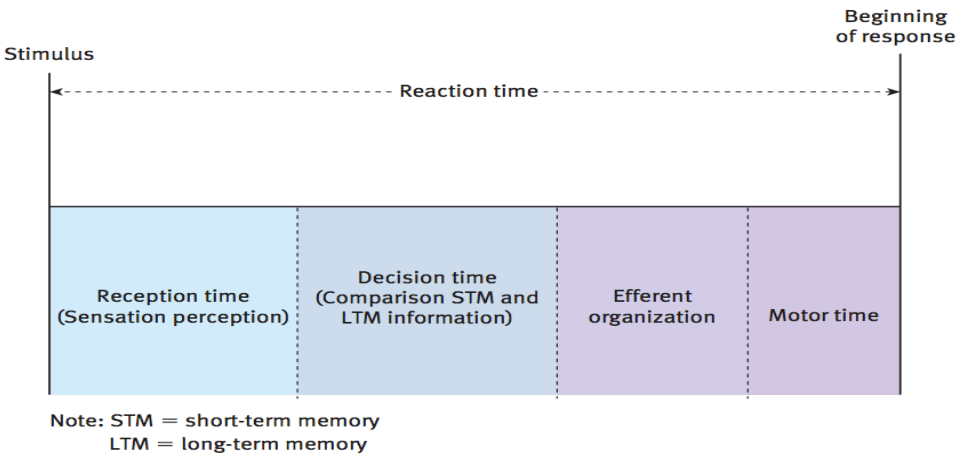
Response time is the time from the introduction of a stimulus to the completion of the action required to deal with the problem.

- Response time is made up of _____ time and _____ time.
- Reaction time is the time that _____ from the sudden onset of a stimulus to the beginning of an overt response.
- Movement time is the time it takes to carry out the motor _____ of the performance.



5.2.9 Outline factors that determine response time

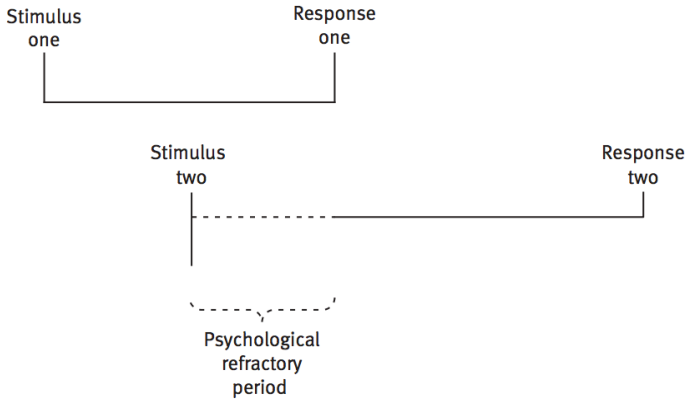
- Response time _____ throughout childhood and adolescence, however, as we get older it gets slower.
- Movement time is affected by _____, particularly power and speed of limb movement.
- Training can greatly affect movement time but **reaction time is less easy to _____**.



- The main factor affecting speed of reaction is **the _____ of choices that the individual has to make**.
- If there are no choices, what we call _____ reaction time, the mean times range between 170 and 200 msecs.
    - However, as we increase the number of choices, what is termed choice _____ time, the times increase.
- Hick (1952) found that as you _____ the number of stimulus-response couplings the reaction time increased.
- If the _____ time is plotted against the log of the stimulus-response couplings there is a _____ increase.
    - **This is known as Hick's Law**. Generally, reaction time _____ by about 150 msecs every time the stimulus-response groupings are doubled.

5.2.10 Evaluate the concept of the psychological response period (PRP)

- When two stimuli are _____ close together the reaction time to the second stimulus is slower than _____ reaction time.
    - The time gap was called the **_____ refractory period.**
    - Welford claimed that processing of stimulus 2 (S2) could not take place until processing of stimulus 1 (S1) had been completed.
- The effect of the psychological _____ period can be seen in many sports.
    - Any example of a feint, dodge or dummy is an example of the use of the psychological refractory period.
    - The feint is S1 and the _____ movement is S2. If the timing is correct, the defender will be comparatively slow in reacting to the real movement.



- **Feint** - make a deceptive or _____ movement, typically during a fight.

- This is the skill of football players like Le'veon Bell, basketball players like Russell Westbrook and soccer players such as Cristiano Ronaldo.
    - Similar feints can be seen in the drop shot in badminton or a dummy punch in boxing.