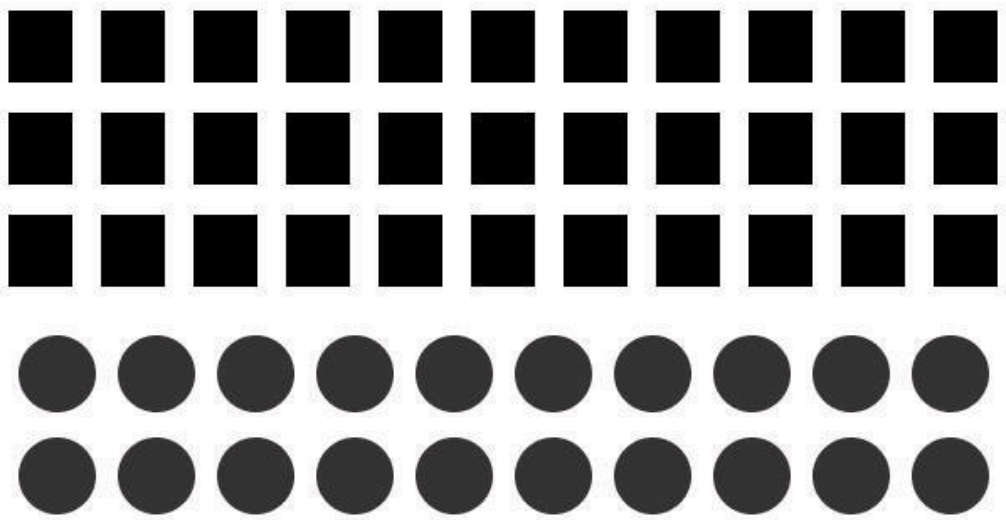
- Which of the following patterns on the psychometric curve would suggest a well-designed test with a good range of item difficulty?
    a. A steep curve, with most participants scoring high on easy items and low on difficult items.
    b. A flat curve with a consistently high performance across all difficulty levels.
    c. An S-shaped curve where performance is low on easy items, peaks at moderate difficulty, and declines on difficult items.
    d. A jagged curve with erratic spikes and dips in performance across all difficulty levels.

- If a participant is required to perform a complex decision-making task and experiences an increase in reaction time (RT), what likely impacts their accuracy?
    a. Accuracy will also increase proportionally.
    b. Accuracy will decrease, showcasing the speed-accuracy tradeoff.
    c. Accuracy will remain unaffected, indicating speed accuracy tradeoff.
    d. Accuracy will become perfect, compensating for the extended reaction time.

- You are attending a crowded music festival with multiple stages featuring different genres of music. Despite the lively atmosphere and diverse performances, you find yourself engrossed in a conversation with a friend. This ability to focus on your conversation while ignoring the surrounding music represents:
    A) Divided attention.
    B) Transient attention.
    C) Selective attention.
    D) Sustained attention.

- Imagine you are attending a party with multiple conversations happening simultaneously. According to Broadbent's model, which stage of information processing is responsible for filtering out irrelevant conversations before further analysis?
    A) Sensory input.
    B) Filter processing.
    C) Pattern recognition.
    D) Response selection.

- In the picture below, you can see a couple of square and rounded shapes. Though they all are separated by space, but perceptually, we can make some groups out of them i.e all the square shapes together create a perceptual group.



What kind of attention is crucial in gathering information and making perceptual grouping?

a. Transient attention
b. Visual spatial selective attention
c. Temporal attention
d. Object-based attention

- The dynamics of pupil diameter can be recorded using an eye tracker. Pupil constricts and dilates based on different situations and circumstances like changes in light intensity or cognitive processing. Choose the most appropriate option from the below

  a. Pupil can only be used to study the changes in light intensity, not anything else
  b. Though pupil dynamics can be used to study cognitive processes it can't be used as study mental and behavioral disorders i.e ADHD
  c. Pupil can be used only to study Attention, not other cognitive processes like Learning or memory.
  d. None of the above is correct

- Which of the following is one of the functions of Temporal lobe?

  a. Face Recognition.
  b. Depth Perception.
  c. Spatial Location.
  d. Speech and Language Control.

- What term refers to the process by which the brain organizes and interprets sensory information to give it meaning?

  a. Sensation
  b. Perception.
  c. Attention.

d. Memory.

- Which part of the brain is responsible for depth perception?
  a. Occipital Lobe.
  b. Temporal Lobe.
  c. Frontal Lobe.
  d. Parietal Lobe.

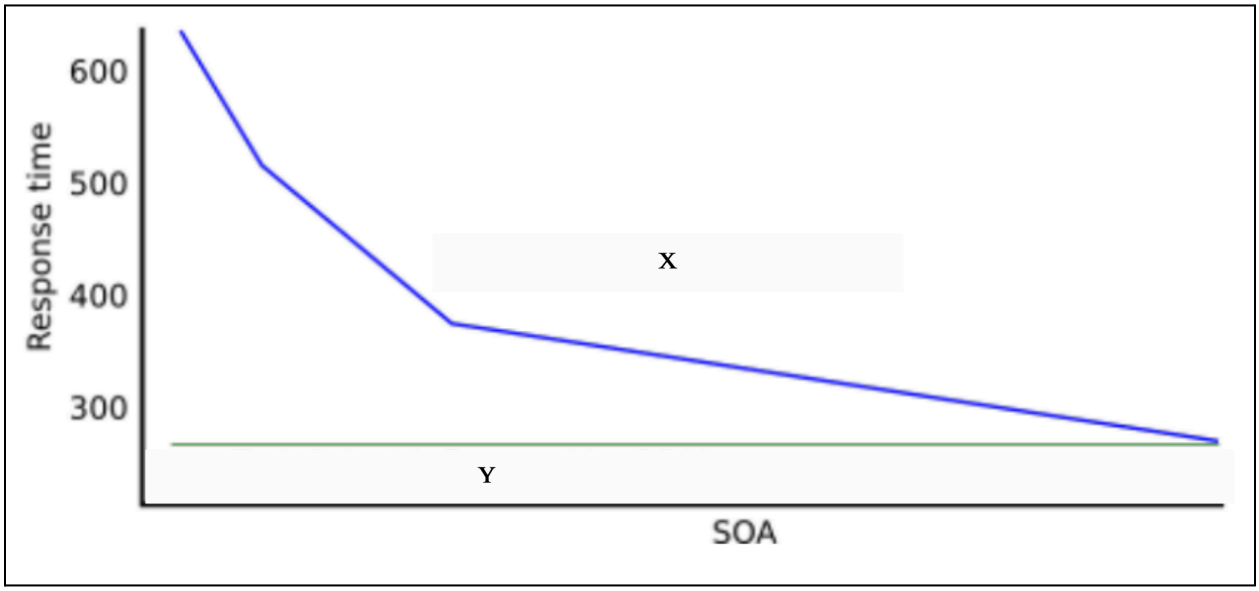
- How does the Cocktail party effect relate to attention?
  a. It demonstrates the brain's ability to multitask effectively.
  b. It highlights selective attention, where the brain focuses on relevant stimuli while filtering out Irrelevant ones.
  c. It shows that attention is solely determined by external factors.
  d. It proves that attention is a fixed capacity that cannot be modified.

- Imagine you are at a crowded party, engaged in a conversation with a friend. Despite the noisy environment, you can effortlessly focus on your friend's voice while turning out the surrounding chatter.
  In the above scenario, what term best describes the phenomenon of being able to focus on your friends voice while ignoring other conversations?
  a. Inattentional blindness.
  b. Selective attention.
  c. Divided attention.
  d. Sensory Adaptation.

- Imagine you are searching for your friend in a crowded park. You know your friend is wearing a bright yellow jacket. Despite the large number of people, you quickly spot your friend from a distance because of the distinctive color of their jacket.
  In the above scenario, what type of attentional mechanism is at play when you selectively focus on the color of your friend's jacket?
  a. Spatial attention
  b. Feature-based attention
  c. Object-based attention
  d. Divided attention

- You are driving and talking on the phone when you see a red light turn yellow ahead. According to the psychological refractory period (PRP), what is most likely to happen to your reaction time in stopping the car?
  a. It will not be affected, as driving and talking are routine tasks.
  b. It will decrease, allowing you to stop more quickly.
  c. It will increase, making it harder to stop in time.
  d. It will become unpredictable and unreliable.

- An experiment was conducted with 2 tasks shortly after each other (task 1 & task 2), the experimental data was then used to plot the graph given below. Identify the X and Y in the graph



  a. X - Task 1 influenced by SOA, Y - Task 2 not influenced by SOA
  b. X - Task 2 influenced by SOA, Y - Task 1 not influenced by SOA
  c. X - Task 2 not influenced by SOA, Y - Task 1 influenced by SOA
  d. X - Task 1 not influenced by SOA, Y - Task 2 influenced by SOA

- You are at the bakery, trying to decide between two chocolate chip cookies. One cookie is slightly sweeter than the other. Based on the concept of just noticeable difference (JND) in psychophysics, which statement is most likely true?
  a. You will definitely notice the difference in sweetness between the two cookies.
  b. You will only be able to tell the difference if the sweeter cookie is at least twice sweet than the less sweet one.
  c. You will be able to notice the difference in sweetness, but the exact amount of sweetness difference needed depends on the original sweetness of the cookies.
  d. You cannot tell the difference in sweetness at all, as chocolate chip cookies are too complex.

- A security guard is responsible for monitoring surveillance footage for suspicious activity. According to signal detection theory, what is most likely to happen if the guard is instructed to prioritize avoiding false positives (accusing innocent people)?
  a. They will miss some true positives (failing to identify actual threats).
  b. They will be equally likely to make false positives and false negatives.
  c. They will make more false positives than false negatives.
  d. They will make fewer false positives, even if it means missing some true positives.

- True or false; If the distractors are more similar in characteristics to the target in a visual search task, it will lead to lesser reaction time.

- In a Flanker Task experiment, participants are asked to respond to a central target stimulus while ignoring surrounding distracting stimuli. What is the expected impact on participants' response time if the distracting stimuli are incongruent (e.g., arrows pointing in the opposite direction)?

  A) Response time is expected to decrease due to enhanced focus on the central target.
  B) Response time is expected to remain unchanged as the distractors should have no effect.
  C) Response time is expected to increase, reflecting interference from incongruent distractors.
  D) Response time is expected to be faster as incongruent distractors facilitate cognitive processing.

- In the study of brain activity, researchers often use EEG and fMRI to capture different aspects of neural processes. If the goal is to examine the temporal dynamics of brain activity with high temporal resolution, which method would be more suitable?

  A) EEG (Electroencephalography)
  B) fMRI (Functional Magnetic Resonance Imaging)
  C) Both EEG and fMRI provide equally high temporal resolution.
  D) Neither EEG or fMRI is effective for capturing temporal dynamics.

- In a town, residents encounter a daily challenge where they spot a surprise sign prompting them to interpret its message quickly. In response to this, they must decide whether to follow the sign's suggestion or not. Once decided, they swiftly plan their action, executing the chosen response precisely. This town's daily routine mirrors the cognitive flow from:

  a. A) Perception, Stimulus, Response Selection (Decision), Response Programming, Response
  b. B) Stimulus, Response, Perception, Response Selection (Decision), Response Programming
  c. C) Response Selection (Decision), Stimulus, Perception, Response Programming, Response
  d. D) Perception, Stimulus, Response Programming, Response Selection (Decision), Response

- The tract of nerve fibers that connects the left and right hemispheres in the brain is called _____

  corpus callosum

- The part of brain responsible for speech comprehension and color perception is

  a) Frontal Lobe
  b) Temporal Lobe

c) Parietal Lobe
d) Occipital Lobe

- Alex is driving on a busy highway when he notices a flashing red traffic light ahead. He quickly shifts his gaze towards the signal, evaluating the need to slow down. What type of attention is Alex using in this situation?
  a) Covert attention
  b) Selective attention
  c) Overt attention
  d) Divided attention

- David is watching a magic show. The magician asks the audience to focus on a specific card while performing a sleight of hand. What attention phenomenon is the magician utilizing in this situation?
  a) Divided attention
  b) Attention as a Spotlight
  c) Cocktail Party Effect
  d) Involuntary attention