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SUBJECT HCI

Q1: What is the main aim of the Don Norman's Book (The Design of Everyday things)?

Ans: Don Norman's Book (The Design of Everyday things) is the best selling book it make it more easier to communicate between user and object.

It was originally published in 1988 the main (the Design of Everyday things) expanded and publish in 2013.

One of the main premises of the book is that although people are often keen to blame themselves when objects appear to malfunction, it is not the fault of the user but rather the lack of intuitive guidance that should be present in the design.

B. Explain Deductive and Abductive reasoning with Example?

Ans:

Deductive Reasoning:

Deductive reasoning relies on a general statement or hypothesis—sometimes called a premise or standard—held to be true. The premise is used to reach a specific, logical conclusion.

Example:

Deductive reasoning relies on a general statement or hypothesis—sometimes called a premise or standard—held to be true. The premise is used to reach a specific, logical conclusion. A common **example** is the if/then statement. If $A = B$ and $B = C$, then deductive reasoning tells us that $A = C$.

Abductive reasoning:

Abductive reasoning **is** a form of logical inference which starts with an observation or set of observations and then seeks to find the simplest and most likely explanation for the observations.

Example:

The world is flat.

The world is round.

The world is inside a supercomputer.

Here we see that usually Hypothesis 2 is preferred, because that's something we have evidence of.

Q2:Analyze the following scenario and write down seven stages of action for given particular scenario for solution.

Scenario is:

Suppose I want to go to University, but the tyre of my car got punctured. Now I have to repair it.

You are required to write the seven stages of Gulf of Execution and Evaluation to solve the scenario.

Ans: To solve the following scenario we have to first identify and then apply 7 stages Gulf of execution and evaluation.

Stages:

First stage:

In the first stage we have to make a goal. Here the goal is to go to university but the tire is punctured first I have to go to puncture shop to make my tire here the goal is established.

2nd stage:

In the second stage I have to make intentions like I would work on the goal like I have to make my tire working to go to university.

3rd stage:

The stage is to satisfying an action. That what I have to do to achieve my goals.

4th stage:

IN the fourth stage I have to execute an action like tire puncture repairing to reach my university.

5th stage:

In the fifth stage I have to use my sense hence the car is repaired it will able to reach to the university.

6th stage:

In this stage we will interrupt the state of the system our tire was punctured its repaired and now it able to travel.

7th stage:

The last where I have to check either I have achieved my goal or not.

Q3: Differentiate between slip and mistake?**Mistake:**

These error occurs when person is not aware of task or doing something she/he never know about that thing before and they done it wrong way these are what we called mistake.

For example:

You never drive a car before you are driving first time you put the gear no 4 instead of one this is called mistake because you are not aware of this thing before.

You are eating something you haven't try before and you are eating it wrong way its called mistake.

Slip:

You are aware of something you know about that how it will be done but unintentionally you done it wrong mean you don't want to do it wrong but its happen called slip.

For example:

Your filling your car after filling you forget your patrol cap its called slip.

You are writing something and you write some word wrong its also a slip.

B. Explain Self perception and object perception?**Self Perception:**

It is the determination consist of attitude of your own behavior. Self perception if good it helps a lot mean if you got rejected it help us to motivate and keep pushing to fulfill our dreams.

Object perception:

It is the perception of object we notice its moment, size shape and weight from different angles in which visual input is assigned a meaningful interpretation.

Q4: Steps involved in perceptual process?

Definition:

Perception is the organization, identification and interpretation of sensory information in order to represent and understand the presented information and environment.

Steps:

There are five steps involved in perceptual process

1. Stimulation
2. Organization
3. Interpretation
4. Memory
5. Recall

But here the most important are first three we will explain these three

Stimulation:

perception process involves in contact with a particular stimulus. The world is full of stimuli that can attract our attention through various senses.

Organization:

The capacity to identify and recognize objects and events is crucial for normal perception. Without that capacity, people cannot effectively use their senses. Perception which organized by rules, schemata and scripts.

Interpretation:

In this interpretation-evaluation stage it is two process of stimuli by individual experiences, needs, wants, values, expectations, physical and emotional state, gender and beliefs meaning based on by individual's rules, schemata and scripts.

B. Difference between perception and recognition?

Perception:

Perception is organization, identification and interpretation of sensory information That which is detected by the five senses; not necessarily understood (imagine looking through fog, trying to understand if you see a small dog or a cat); also that which is detected within consciousness as a thought, intuition, deduction, etc.

Recognition:

Recognition is the act of recognizing or the condition of being recognized. Recognizing a familiar face without being able to recall the person's name is a common example. Recognition seems to indicate selective retention and forgetting of certain elements of experience.

Q5:

- a) A graphic designer, wants to design a 3d shape using Adobe Illustrator, he select a shape, apply some gradient on it and then apply drop shadow effect.

In the given scenario in the light of interaction identify the Goal, Problem domain and the task.

Ans: Goal: The designer want to design a 3d Shape.

Domain: Adobe Illustrator

Task: select a shape, apply some gradient, apply drop shadow effect

B. Explain Gulf of execution and Gulf of evaluation?**Gulf of execution:**

The gulf of execution is the degree to which the interaction possibilities of an artifact, a computer system or likewise correspond to the intentions of the person and what that person perceives is possible to do with the artificial/application/etc.

In easy words what the user want from the system and what will the system provide to the user in response user expect from the system to do what the user need.

Example:

A person want to record a program from the radio he simply think that I will select the record button and it will start the recording but in the real you may have an empty cassette to record on it verify the duration select the channel and then press record button.

Gulf of Evaluation

Disparity between the user's perception (or discovery) of the system state, and the actual system state

Example:

Copying a large number of files

Large gulf of evaluation: hourglass, spinning pinwheel, no details

Small gulf of evaluation: progress bar with listing of current file being copied, and estimated completion time