02 : Interaction Framework

Problem 1. Door Knob

The closet door knobs are elongated to one side. These types of elongated knobs are easier to rotate than the circular knob. Our mind does not think of the things which we are used to, on the other hand even after looking to knob normal person will attempt to turn it. It looks very identical to our regular door knob where we turn to unlatch. The only way to know how it opens is by experiment, and it is not uncommon for experiments to fail.
In this problem, Gulf of Evaluation;
1. Presentation: The closets are closed, and it doesn't seem to be broken. So, a visitor just needs to open door to put his coat.
Perception: Visitor, looks to the door, and he sees it is closed, which is true.
Interpretation: But, visitor interprets the door knobs in a different way. He thinks the door knobs are locked even though they do not have any latch mechanism. *Here is the **break**.* The failure of interpretation will lead to gulf of evaluation.

Our interpretation is broken, but there is still a **goal** to open a closet.
The user still continues with broken interpretation and has an **intention** to open closet doors with the help of handle by turning it.
The failure in **interpretation** also leads to **incorrect specify sequence** and they try to turn it while they should pull it. This will make them either give up or break the handle. One error in the interaction framework leads to multiple breakdowns in communication channels.

Problem 2. Drinking Fountain

Gulf of evaluation
1. Presentation: The drinking fountain works well, it throws water when pushing the right buttons, you can easily identify that water is being thrown. If water weren't thrown, Timmy would have noticed it.
2. Perception: Despite that Timmy have observed adults leaning against the drinking fountain to get water, he made the same procedure he thinks he saw, just leaning to get water. The important part for him is to get water to get out.
3. Interpretation: Timmy is not understanding all the components of the interface, he thinks that leaning against the fountain will bring water out, which is correct, but in reality you have to push the button and keep pushing to keep water going out, if you stop leaning or pushing water will stop, Timmy hasn't understood this part of the interface.
4. Evaluation: Timmy is trying to understand what's wrong with his actions, he is doing what the adults did, what did I do wrong? He should think. Maybe I'm not leaning correctly.

Gulf of execution
1. Goal: He wants to lean against the drinking fountain to get and drink some water.
2. Intention: In this case, the drinking fountain has to start working correctly after pushing the buttons and make water to come out of the fountain, by working correctly water will be thrown and Timmy will be able to drink it.
3. Specify sequence: Timmy will walk towards the drinking fountain. he will lean against it, he will get on his tiptoes and finally, he will drink the water that comes out. Here's a problem

because he is not considering to push the button, he is not planning to do so, because he doesn't know about any button.
4. Execute sequence: Here's a break because Timmy is not able to push the buttons and drink water at the same time, this is because he doesn't understand how this works, he planned the actions in a wrong way. Maybe his height doesn't help to achieve his goal. This is why he was supported by his father after trying.

Problem 3. Car Door Handle

Gulf of evaluation
1. Presentation: The door looks closed and Jimmy sees a handle with which door can be opened. The door hand works well when operated correctly you are able to open and close the door with this handle.
2. Perception: Jimmy sees his dad opening the door in a normal way. He perceives it to be easy and straight forward.
3. Interpretation: He interprets what he saw. The view that his dad was opening the door with one hand makes him feel that he can do the same task the same way.
4. Evaluation: Jimmy calculates his strength to be sufficient for opening door. Jimmy is trying to open the door. He even tries to open the door with two hands. Does not understand the strength you need to pull the door open.

Gulf of execution
1. Goal: He wants to open the door like he has seen his dad do in the past.
2. Intention: In this case, he is doing things just like he has seen in the past, but does not have the strength of the other users that he has seen use this interface.
3. Specify sequence: Jimmy runs to the truck door. Put his hand on the truck just like he has seen his dad do in the past with his right hand on the handle and pushing in the button. Tries to pulls the door open.
4. Execute sequence: Here is a break because Jimmy does not have the strength to pull the door open, he planed all of the action correctly like he has seen his dad do in the past but did not see how much strength it took to open the door. This is why he was helped by his father after trying to do it himself.

Problem 4. Dashboard

Gulf of evaluation
1. Presentation: This screen has a great way to present information and data to the user, you can easily watch the map, select songs, and other actions because it is wide and colorful.
2. Perception: He understands correctly the information and elements the screen are showing, he hears the music and is able to see maps.
3. Interpretation: It seems that he has a good understanding of the elements of the screen, he knows how to find maps and navigate through the different songs, he knows how to connect a smartphone or a USB memory with music to the car system.
4. Evaluation: He is having a hard time with his songs and finding a different route, he knows his car and has used before these elements to get the same results he is trying to get this time. It is hard to choose songs manually and navigate through a map at the same time, the same screen while driving, it would be nice to have another app or software to change songs while driving. Maybe a control at the steering wheel may be useful (but I don't think this part of this specific problem).

Gulf of execution
1. Goal: In this situation, he has two main different goals (talking about the use of the dashboard), listen to his favorite songs and find a different route to take.
2. Intention: Here may be an intention failure, despite that he is using the elements in the right way and doing the actions to change songs and find a different route, it is wrong to keep your eyes in the screen while watching, all cars with touch-screen says to don't keep your eyes on the screen while driving.
3. Specify sequence: He will follow the next steps: select the music player to choose his songs, try to find, and then choose his favorite song while navigating through songs he will change to the map so he can find an alternate route.
4. Execute sequence: Here's a break because it's hard to choose, and navigate through songs while watching the map and driving, he is performing all the tasks, but those are not complete tasks, he almost had an accident because of the other actions he was performing.

Problem 5. Car Seat Base

1. Presentation - This is not a problem because the car seat state is fairly simple to understand. It clearly communicates if the car seat is locked in or not.
2. Perception - This is also not a problem because there are multiple queues that allow users to accept input. There is a click when the car seat locks in and the seat does not move once it is in.
3. Interpretation - There is no problem here because the mother knows that the car seat is not locking, which is why she continues to try. Because she continues to try we can assume she understands that if she did not hear a click then the car seat is not locked in place.
4. Evaluation - This could be an area that caused a breakdown because she doesn't understand why the system is not working. She interprets it as not working, but she cannot understand why and thus tries the same thing over and over.

1.Goal - The goal is clear, put the car seat in the car.
2. Intention - This could be a breakdown if the mother does not understand how the car seat works. She may be using the tool in a way it was not meant to be used.
3. Specify Sequence - This could also be a breakdown because the mother's is not doing everything she needs to do to lock the car seat in place. In a pressure situation, like the one she is in, she may be missing steps she needs to do in order to make it work. However, if the child is 3 months old, then we can assume the mother has done this before and knows how the car seat works.
4. Execute Sequence - This is one of the most likely causes of breakdown. As previously stated, with a 3-month-old, we can safely assume the mother knows how to put a car seat in the car, she is simply doing it wrong in the high pressure situation. To lock a car seat in place, it has to go in perfectly, so if she is slightly off in any way, then there is a breakdown in her execution of the sequence.