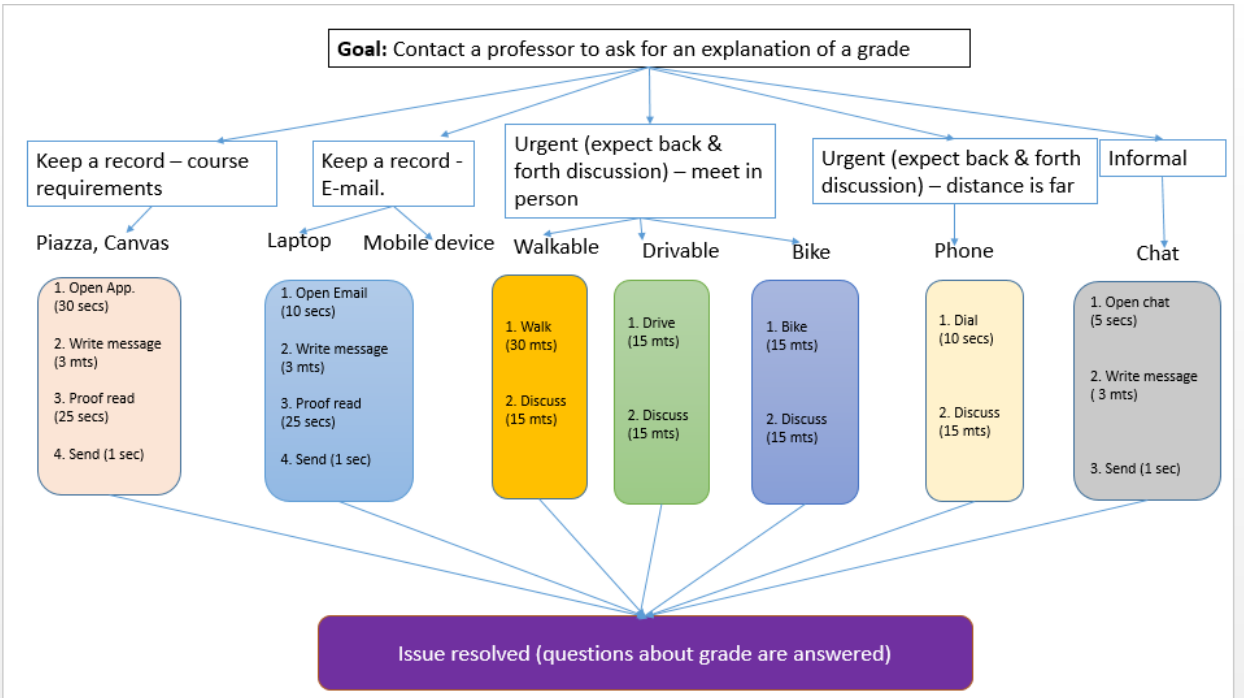
1)


Goal: Contact a professor to ask for an explanation of a grade
Keep a record – course requirements
Keep a record - E-mail.
Urgent (expect back & forth discussion) – meet in person
Urgent (expect back & forth discussion) – distance is far
Informal
Piazza, Canvas
Laptop
Mobile device
Walkable
Drivable
Bike
Phone
Chat
1. Open App. (30 secs)
2. Write message (3 mts)
3. Proof read (25 secs)
4. Send (1 sec)
1. Open Email (10 secs)
2. Write message (3 mts)
3. Proof read (25 secs)
4. Send (1 sec)
1. Walk (30 mts)
2. Discuss (15 mts)
1. Drive (15 mts)
2. Discuss (15 mts)
1. Bike (15 mts)
2. Discuss (15 mts)
1. Dial (10 secs)
2. Discuss (15 mts)
1. Open chat (5 secs)
2. Write message (3 mts)
3. Send (1 sec)
Issue resolved (questions about grade are answered)

2)


Goal: Submit assignment
Watch lectures
Read instructions
Access text editor
Question 1 draft
Question 2 draft
Question 3 draft
Question 4 draft
Complete question 1
Complete question 2
Complete question 3
Complete question 4
Consolidate assignment

Submit assignment

1. Open a web browser
2. Type the URL to access Canvas
3. Login to Canvas
4. Select the appropriate course (HCI)
5. Navigate and click on assignments
6. Click the assignment name
7. Click Submit Assignment
8. Click Choose File
9. Browse to the folder where the assignment is saved
10. Select the file
11. Click Submit Assignment
12. Check to see if the submission went through.
13. Close Canvas.

3) The driver needs to remember all the appropriate road rules which requires the memory aspect of the cognitive function. The driver needs to constantly monitor the current state of the car and evaluate the same against the rules and take corrective action. In addition, the driver is responsible for assessing if the vehicle is on the right path towards reaching the destination. This involves both perception and reasoning on part of the driver. Though, the passenger can share some of these tasks it is the main responsibility of the driver to undertake these actions. For example, if the driver is driving the car way too fast exceeding the speed limits, the passenger can indeed alert the driver about the posted speed limits. The role of navigator requires the driver to remember the directions to reach the destination. This task can certainly be offloaded to the passenger, thereby freeing up the driver's cognitive bandwidth. Even the passenger doesn't have to remember the directions – they can refer to a map, or to a notepad on which they might have written the directions while planning for the trip. Moreover, referring to a map to navigate the car while the car is in motion is impossible to do by the driver. Also, the passenger can perform the role of a DJ by tuning to the appropriate radio channels thereby freeing up the drivers bandwidth to perform such actions. The cognitive role of acting which includes performing tasks such as steering the car, applying brakes, accelerating the car is solely performed by the driver.

While distributed cognition helps the driver perform the tasks effectively by offloading some cognitive tasks, social cognition helps communicating and understanding information about similar drivers on the road. For example, social cognition can help understand how many other drivers are traveling along the same path and their speeds. Also, it can help to see if their friends or acquaintances are travelling close to them in the same direction. Moreover, social cognition enables learning from others. This means that

drivers can drive at the same speed at which other drivers are driving by learning their behaviors through social cognition.

4) Cooking is a task that I'd like to look at from the perspective of distributed cognition. The system comprises of the cook, cooking range, pans, electric cooker, ingredients, electricity, the recipe and recipe book. I have an old fashioned electric cooking range that has 4 burners and lights that indicate if a corresponding burner is on or off. In addition, the oven has a timer and a display panel that indicates the temperature at each burner. The electric cooker has different options to cook various dishes such as rice, vegetables, chili and pasta.

The recipe provides information on the ingredients required along with the corresponding quantities to achieve the required taste and flavor. In addition, the recipe is for any type of food that I desire to eat. Therefore, I don't have to discover what ingredients are required to make a certain dish and just have to revert to the appropriate recipe. This offloads the reasoning cognitive function from the cook to the recipe. The availability of all recipes in a book further helps me from not having to store it in my head and remember the same every time I need them. This facilitates transferring the memory function from the user to the recipe book artifact. The oven displays the temperature at each burner which helps me perceive how hot my cooking pans are without having to touch and estimate the temperature. Often, it is not even humanly possible to touch pans when being heated so this feature helps offload the cognitive functions of perception and action from the user to the oven. In addition, my oven has a timer that I can set to anytime and not have to remember about it as it would buzz when the time ends. As before, this helps with the memory cognitive function. I also use a programmable electric cooker and depending upon the dish I cook all I have to do is press the right button and my cooker would automatically figure out everything else thereby freeing up my reasoning and action cognitive functions.