# Assignment P4 (Summer 2020)

Deepti Venkatesh
dvenkatesh7@gatech.edu

## 1 QUESTION 1

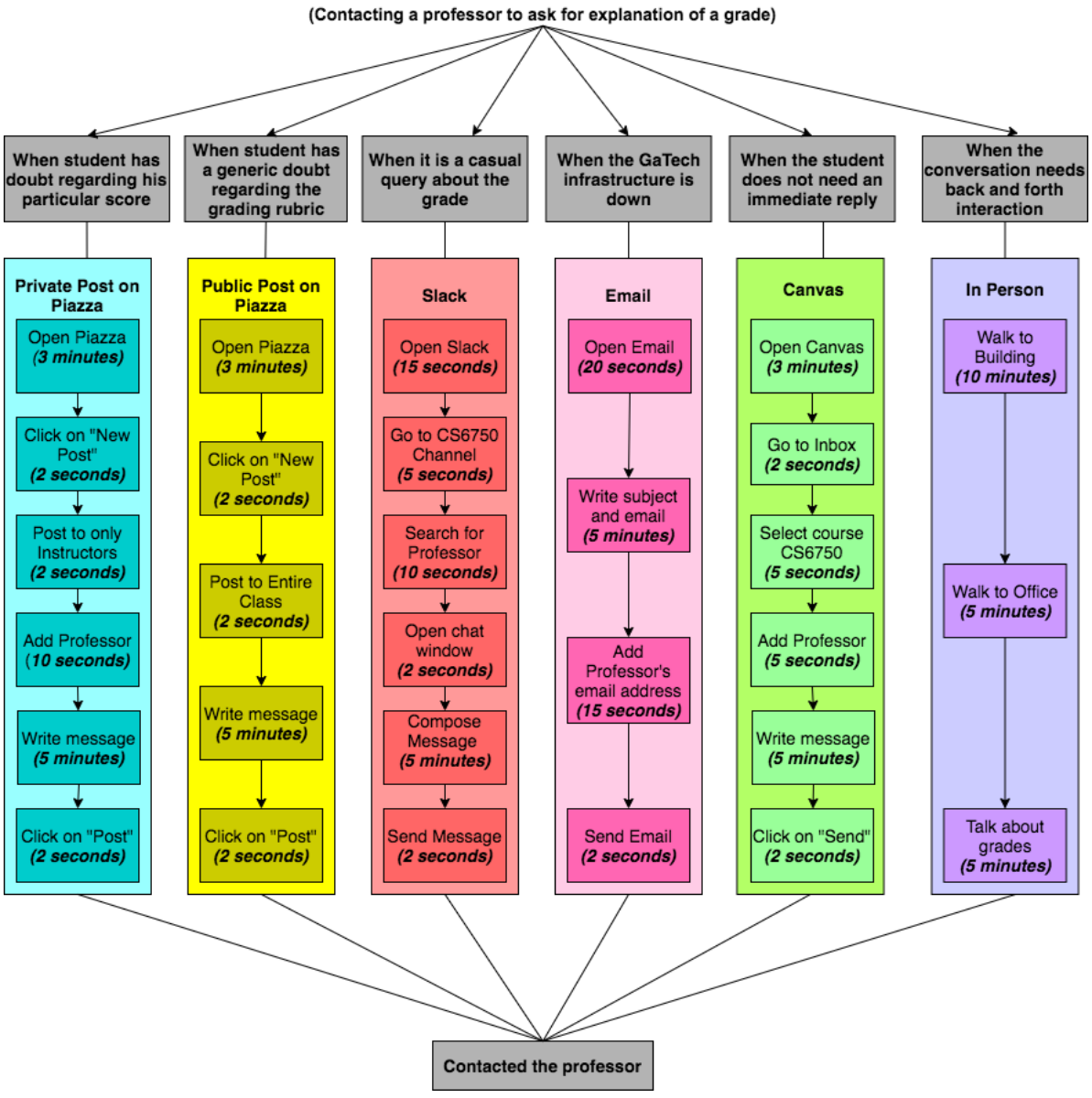


*Figure 1*—GOMS model for contacting a professor.

## 2 QUESTION 2

*Task: Submitting Assignment to Canvas and receiving grade and feedback.*

**subtask 1 - login to canvas**

- sub-sub-task 1.1 - Open Canvas in browser
  - Operator 1.1.1 - Open browser
  - Operator 1.1.2 - Type in Canvas URL
  - Operator 1.1.3 - Hit Enter on Keyboard
- sub-sub-task 1.2 - Enter Log In Credentials
  - Operator 1.2.1 - Click on "Log in to Canvas"
  - Operator 1.2.2 - Enter username
  - Operator 1.2.3 - Enter Password
  - Operator 1.2.4 - Click on "Login"
- sub-sub-task 1.3 - Complete Two Factor Authentication
  - sub-sub-sub-task 1.3.1 - Select a device
    - Operator 1.3.1.1 - Click on Device drop-down
    - Operator 1.3.1.2 - Click on a Device
  - sub-sub-sub-task 1.3.2 - Choose an auth method
    - Operator 1.3.2.1 - Select the method
    - Operator 1.3.2.2 - Click corresponding Button
  - sub-sub-sub-task 1.3.3 - Accept connection request
    - Operator 1.3.3.1 - Open device notification
    - Operator 1.3.3.2 - Click on "Allow"

**subtask 2. Go to the assignment**

- sub-sub-task 2.1 - Select CS6750 from the Dashboard
  - Operator 2.1.1 - Click on CS6750
- sub-sub-task 2.2 - Go to Assignment P4
  - Operator 2.2.1 - Click on "Assignments"
  - Operator 2.2.2 - Click on Assignment P4

**subtask 3. Submit Assignment**

- sub-sub-task 3.1 - Click on "Submit Assignment"
  - Operator 3.1.1 - Click on Submit Assignment

sub-sub-task 3.2 - Upload File

Operator 3.2.1 - Scroll down to File Upload

Operator 3.2.2 - Click on "Choose File"

sub-sub-task 3.3 - Navigate to the desired folder

Operator 3.3.1 - Open "Go To Folder" window

Operator 3.3.2 - Type the path to folder

Operator 3.3.3 - Click "Open" or "Go".

sub-sub-task 3.4 - Upload File

Operator 3.4.1 - Select a file

Operator 3.4.2 - Click on "Open"

sub-sub task 3.5 - Enter comment if any

Operator 3.5.1 - Click on "Comments" field

Operator 3.5.2 - Type the comment

sub-sub-task 3.6 - Click on "Submit Assignment"

Operator 3.3.1 - Click on "Submit Assignment"

**subtask 4. View Grade and feedback when Canvas notifies**

sub-sub-task 4.1 - Check email notification

sub-sub-sub-task 4.1.1 - Open mail in browser

Operator 4.1.1.1 - Open browser

Operator 4.1.1.2 - Type in Email Account URL

Operator 4.1.1.3 - Hit Enter on Keyboard

sub-sub-sub-task 4.1.2 - Login to the Email Account

Operator 4.1.2.2 - Enter username

Operator 4.1.2.3 - Enter Password

Operator 4.1.2.4 - Click on "Login"

sub-sub-sub-task 4.1.3 - Open mail from Canvas

Operator 4.1.3.1 - Scroll to mail from Canvas

Operator 4.1.3.2 - Click on the selected Email

sub-sub-sub-task 4.1.4 - Click on View Grades

Operator 4.1.4.1 - Scroll to "View Grades"

Operator 4.1.4.2 - Click on "View Grades"

sub-sub-task 4.2 - Log in to Canvas

sub-sub-sub-task 4.2.1 - Enter Log In Credentials

Operator 4.2.1.1 - Click on "Log in to Canvas"

Operator 4.2.1.2 - Enter username

Operator 4.2.1.3 - Enter Password

Operator 4.2.1.4 - Click on "Login"

sub-sub-sub-task 4.2.2 - Complete Two Factor Auth

sub-sub-sub-sub-task 4.2.2.1 - Select a device

Operator 4.2.2.1.1 - Click Device dropdown

Operator 4.2.2.1.2 - Select a Device

sub-sub-sub-sub-task 4.2.2.2 - Choose auth

Operator 4.2.2.2.1 - Select the method

Operator 4.2.2.2.2 - Click the Button

sub-sub-sub-sub-task 4.2.2.3 - Accept request

Operator 4.2.2.3.1 - Open the notification

Operator 4.2.2.3.2 - Click on "Allow"

sub-sub-task 4.5 - View Grade

Operator 4.5.1 - Scroll right to find the Score

sub-sub-task 4.6 - View Feedback

Operator 4.6.1 - Scroll down to find detailed feedback

# 3 QUESTION 3

## 3.1 Cognitive Activities of the Driver

### 3.1.1 *Perception*

The driver has to use his visual, auditory perceptions to drive the vehicle.

**Visual** – The driver and the passenger together look at the map and come up with a route to reach the destination. The driver has to keep a constant eye on the surrounding traffic, keep checking for landmarks, has to keep an eye on the car controls etc. The driver also needs to look at the sign boards (exit numbers , miles remaining etc.).

**Auditory –** The driver has to listen to the horn of other vehicles; the driver has to also listen to the directions given by the spouse.

### 3.1.2 *Memory*

The driver has to keep in mind the route that the spouse explained and also keep in mind the landmarks. The driver also needs to keep in mind the speed limit and the traffic rules. The driver has to keep in mind the action he needs to perform when he reaches the next landmark.

### 3.1.3 *Reasoning*

The driver should be able to reason why he took a particular turn or drove through a particular path. He can do so with the help of a map.

### 3.1.4 *Action*

When the spouse gives the directions, the driver has to act accordingly. When the driver sees a landmark and he knows he has to turn right, he has to turn the steering wheel towards right. When the driver reaches destination, he has to stop. The driver also needs to follow all traffic rules and stop at signals and Stop signs.

## 3.2 Cognitive Activities of the Passenger

### 3.2.1 *Perception*

The passenger has to use the Auditory, Visual perceptions.

**Visual –** The driver and the passenger together look at the map and come up with a route to reach the destination. The passenger has to look at the map and understand the route. The passenger has to keep an eye on the route the driver is driving and compare the route to map to see if they are in the right path. The passenger also needs to keep an eye on the landmarks.

**Auditory –** The passenger has to listen to the driver's queries and come up with the answers quickly.

### 3.2.2 *Memory*

The passenger has to keep in mind their current location and the next landmark and the action that they need to perform at that landmark to guide the driver.

### 3.2.3 *Reasoning*

When the passenger asks the driver to take a turn, he should also be able to reason how he said that. The passenger needs to provide convincing reason for why the alternate route he suggested is better than the originally decided one or why they should take the alternate route.

### 3.2.4 *Action*

If the passenger senses that they cannot go ahead with the decided route, action has to be taken immediately to come up with an alternate route. When the driver is nearing a landmark, the passenger has to act by alerting the driver.

## 3.3 Cognitive Activities of the Map

### 3.3.1 *Perception*

The map perceives the doubts and concerns the driver and passenger have and clears them by depicting it in the form of a map. The map is clearly laid out with directions, route, landmarks etc which will guide the driver and passenger during the journey towards their destination.

### 3.3.2 *Memory*

The map contains all the routes, landmarks, directions etc. The driver and passenger can look at it any time to get the information they want. This is like a permanent storage.

### 3.3.3 *Reasoning*

The map has the roads, houses, buildings, forest areas clearly depicted. All these together can reason why the map is suggesting a particular path to reach the destination. When the passenger and driver see a building or forest they clearly know they can't take that path. They will only look at the roads to decide their route.

### 3.3.4 *Action*

When the driver is stuck and does not know the route, the map takes action by showing the user the direction to take. When the current route cannot be taken, the map also provides the alternate routes. It also guides user by showing landmarks.

### 3.4 Cognitive Activities of the Pen or Pencil

#### 3.4.1 *Perception*

The pencil perceives the driver and passenger's need to mark something on the map for their reference and helps them with the same.

#### 3.4.2 *Memory*

When the passenger marks the route they will be taking, they don't have to remember it. This acts as an extended memory. The passenger can also write a few extra details that will help them in their travel. For example, additional landmarks, restroom stops, restaurants etc.

#### 3.4.3 *Reasoning*

The passenger can add more details like the estimated time to reach the destination, mileage etc which will help them to reason why they decided a particular route.

#### 3.4.4 *Action*

When the driver needs to take an alternate route, the passenger can mark the alternate route with the pencil. When the passenger wants to make note of time they reached each landmark, they can do so with the pencil.

### 3.5 Social Cognition and Distributed Cognition

#### 3.5.1 *What does social cognition reveal that distribution cognition does not?*

With a human navigator, if the passenger knows a better route that he has traveled in earlier that is not represented on the map, the driver can take that to reach the destination sooner. The passenger will guide the driver with the direction and hence the driver need not look at the GPS.

#### 3.5.2 *Social relationships affect the success of the system.*

By taking the shorter route, the driver can reach the destination sooner.

## 4 QUESTION 4

I would like to talk about Netflix. This is a video streaming app that supports multiple profiles. My husband and I have 2 different profiles under the same

account. The task I have chosen is to watch a video based on my preference and my watch history.

## 4.1 Cognitive tasks performed by Netflix

### 4.1.1 *Memory*

I don't have to keep in mind my preferred video, the app, based on my watch history will do it for me. The app also remembers the how much of each video I have watched and also tells the user when the next season of a series is released. The user need not keep any of this in his memory. The app does it.

### 4.1.2 *Perception*

As soon as I open Netflix, it asks me to choose a profile. Once I choose my profile, the Netflix homepage will contain the content viewed by me and the video recommendations based on my watch history. This means the app perceived my interests and displayed shows for me accordingly.

### 4.1.3 *Action*

When a user chooses a profile, the app acts accordingly by displaying the content relevant to the selected profile. When the user watches a new video, the app takes action by playing it including it in my interests.

## 4.2 Cognitive tasks performed by the User

### 4.2.1 *Memory*

The user has to remember to first create a profile for himself under an account and to select the correct profile after opening the app.

### 4.2.2 *Perception*

The user uses his auditory and visual perceptions to view and listen to the suggested videos.

### 4.2.3 *Action*

When the user likes a video suggested by the app, he takes action by playing it. When user doesn't want a particular type of video to be recommended, he can take action and delete it through the app settings. The user also needs to take action and create profiles in the app.