Improving dining experience by reducing confusion and waiting time at dining areas

Group 5: That's Fine

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OBJECTIVES

Objectives

1. To reduce confusion that arises due to the limited information that customers have about food ingredients and food flavors.

? ? ?

3

Objectives (Cont.)

2. To come up with a solution to enable customers to make a better and quick decision on what he wants to order.

Objectives (Cont.)

3. To make information readily available about the food being served across the campus

Dining Area	Time	Todays Menus	Ingredients
Gracies	Lunch	Pakistani House	beef, potato, flour, rice
		Pizza	flour, cheese, tomato sauce
		Pasta	flour, cheese, tomato sauce
Brick City	Lunch	Indian	potato, spinach, rice
		Special Veggie Burger	potato, cheese, mustard
Brick City	Dinner	Ethiopian	potato, cabbage, onion,carrots

HOW WE ARRIVED

How we Arrived

- After observing users in 3 different areas, we finished with eating joints activity among others.

- We started observing the routine activities and the behaviour of customers at dinning services, and came up with four problems.

How we Arrived (Cont.)

- To validate the problems we found, we surveyed users on different dates during different times.

How we Arrived (Cont.)

- We interviewed and shadowed users to specify the critical problems they suffered from.

- We have started focusing on the final problems (will be mentioned in details later), and trying to find a suitable solution to them.

PROBLEMS

Problems

1. Food Preferences:

   a) Flavors.

Problems (Cont.)

1. Food Preferences:
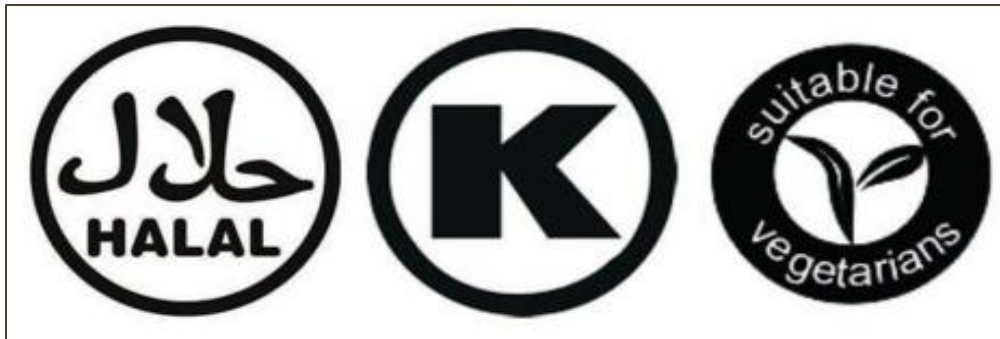
    a) Flavors.

    b) Allergies.

Problems (Cont.)

1. Food Preferences:

    a) Flavors.

    b) Allergies.

    c) Cultural Preferences.

Problems (Cont.)

1. Food Preferences.

2. Waiting time and confusion:

   a) Extra waiting time due to changing multiple queues.

Problems (Cont.)

1. Food Preferences.
2. Waiting time and confusion:
    a) Extra waiting time due to changing multiple queues.
    b) Waiting in the queue to ask a query.

Problems (Cont.)

> Queue formation is not a problem in itself.

> We found a relationship between the two problems.

> The food tasting problem ultimately leads to queue formation ones.

OUR DATA

Data

- **Methods**

Data (Cont.)

- **While observing, we found several problems such as:**

1. How long Customers have to wait in queue?

2. Do they shuffle between the queues?

3. Do they roam around in serving area in order to have idea of what is being offered.

Data (Cont.)

4. Do they misplace things after use?
5. Do customers keep in mind that hygiene is important ?

Data (Cont.)

6. Do they sit in dinning location or walk away with their food?

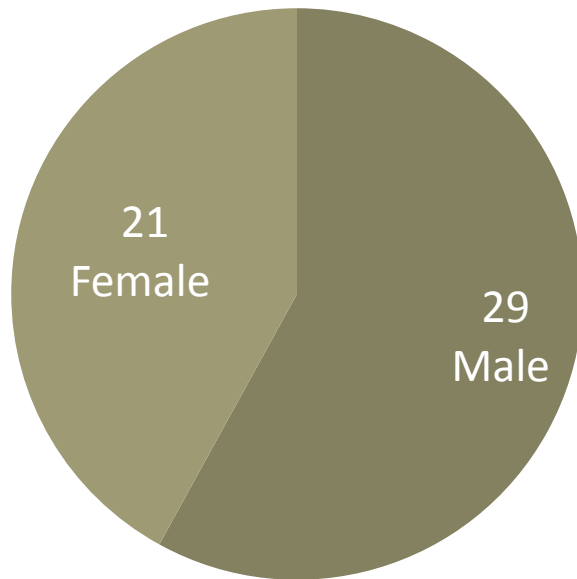# Data (Cont.)

7. How they place their order?

➢ Do they look at menus.

➢ Or they ask the serving chef about dishes.

➢ Or they eat what their friends are eating.

Data (Cont.)

- **After two weeks of observation and understanding user's behaviors, we surveyed, interviewed, and shadowed users to get concrete data and validate our problem scenarios.**
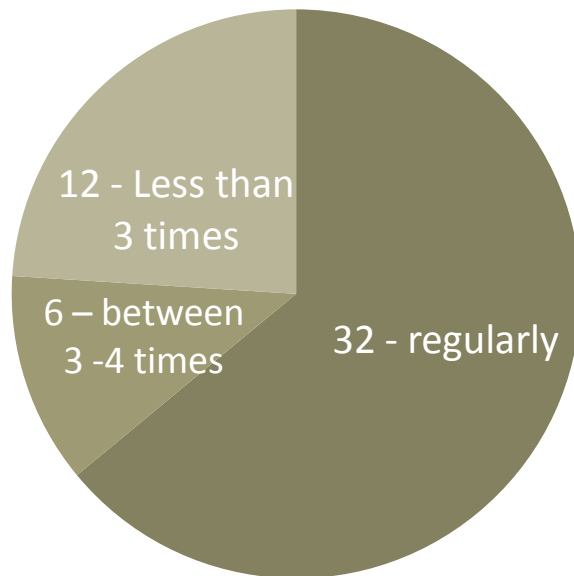
21
Female

29
Male

Survey: 35
Interview:
15

Data (Cont.)

- We asked question related to our problems, either by surveying or interviewing users.

1. Frequency of visiting the dining area?
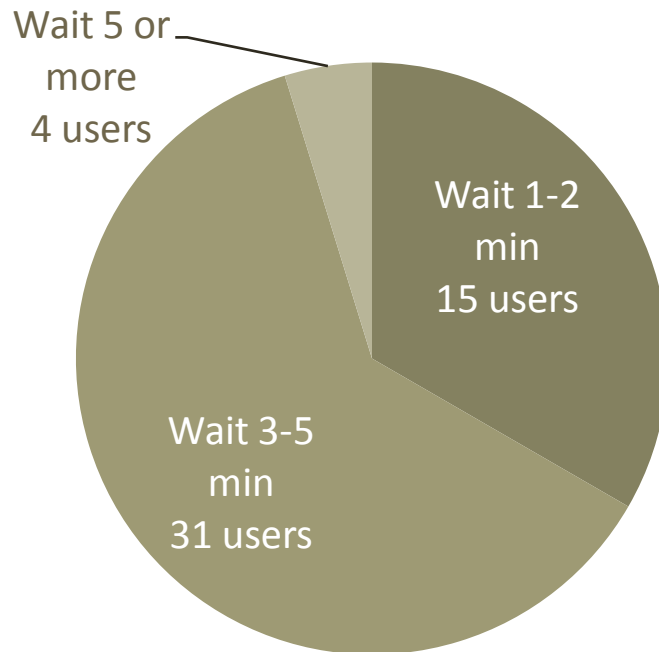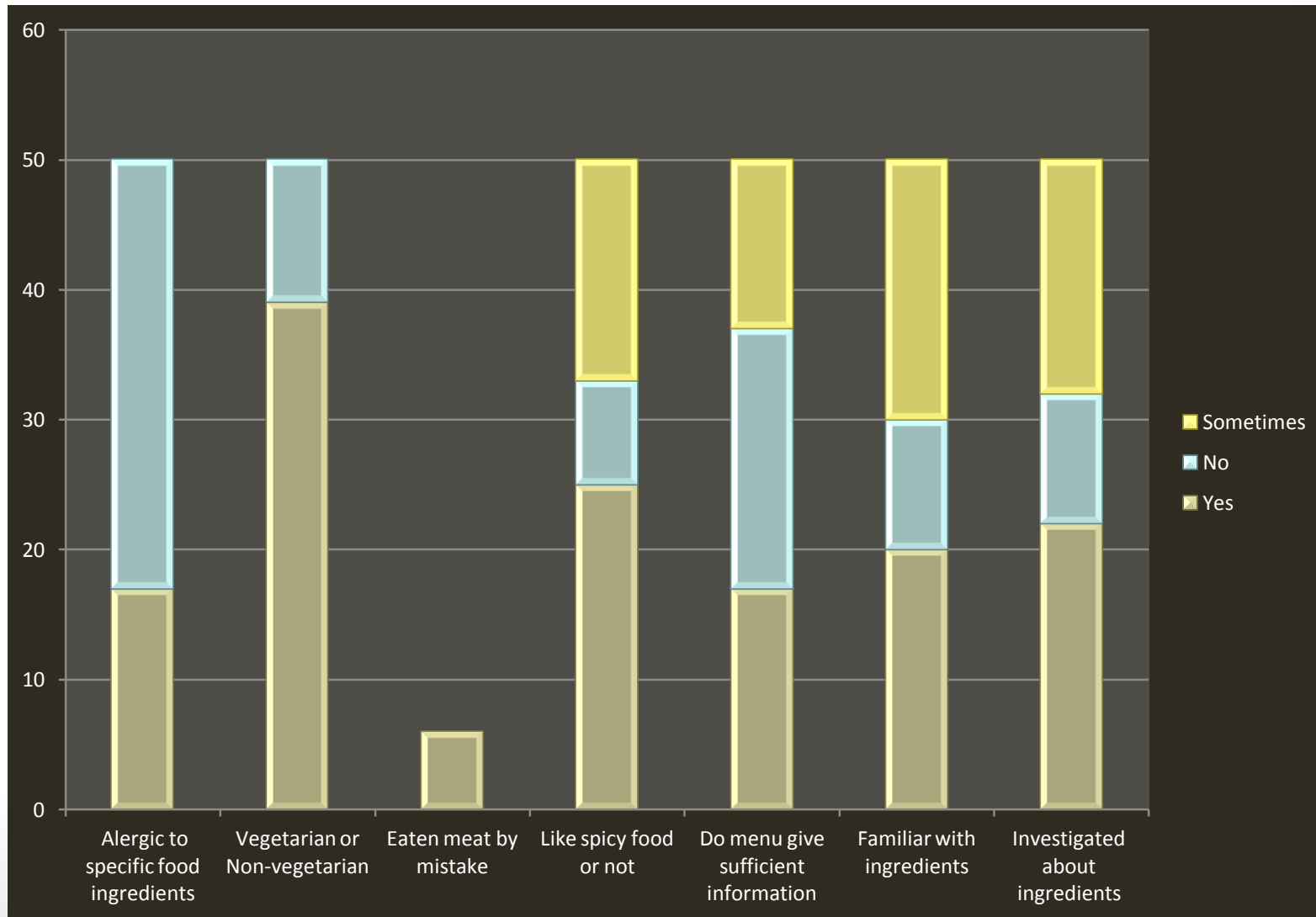
12 - Less than 3 times

6 – between 3 -4 times

32 - regularly

Data (Cont.)

2. Waiting time on average for placing an order?

Wait 5 or more
4 users

Wait 1-2 min
15 users

Wait 3-5 min
31 users

Data (Cont.)

PERSONAS

Personas

- Male

(58% users from our data are male).

- 24 years old

(78% are on this age group 18-25).

- International

(72% are international).

- Not hearing impaired

(90% are not).

- Had a problem with food verities.

(Doesn't eat spicy food).

28

Personas (Cont.)

- Male

(58% users from our data are male).

- 19 years old

(78% are on this age group 18-25).

- International

(72% are international).

- Not hearing impaired

(90% are not).

- Had a problem with Queue

formation and confusion

(waits at least 5 minutes to order).

Personas (Cont.)

- Female

(21% users from our data are female).

- 26 years old

(8% are on this age group 26-35).

- International

(72% are international).

- Not hearing impaired

(90% are not).

- Had a problem with food tasting.

(vegetarian & doesn't eat meat due
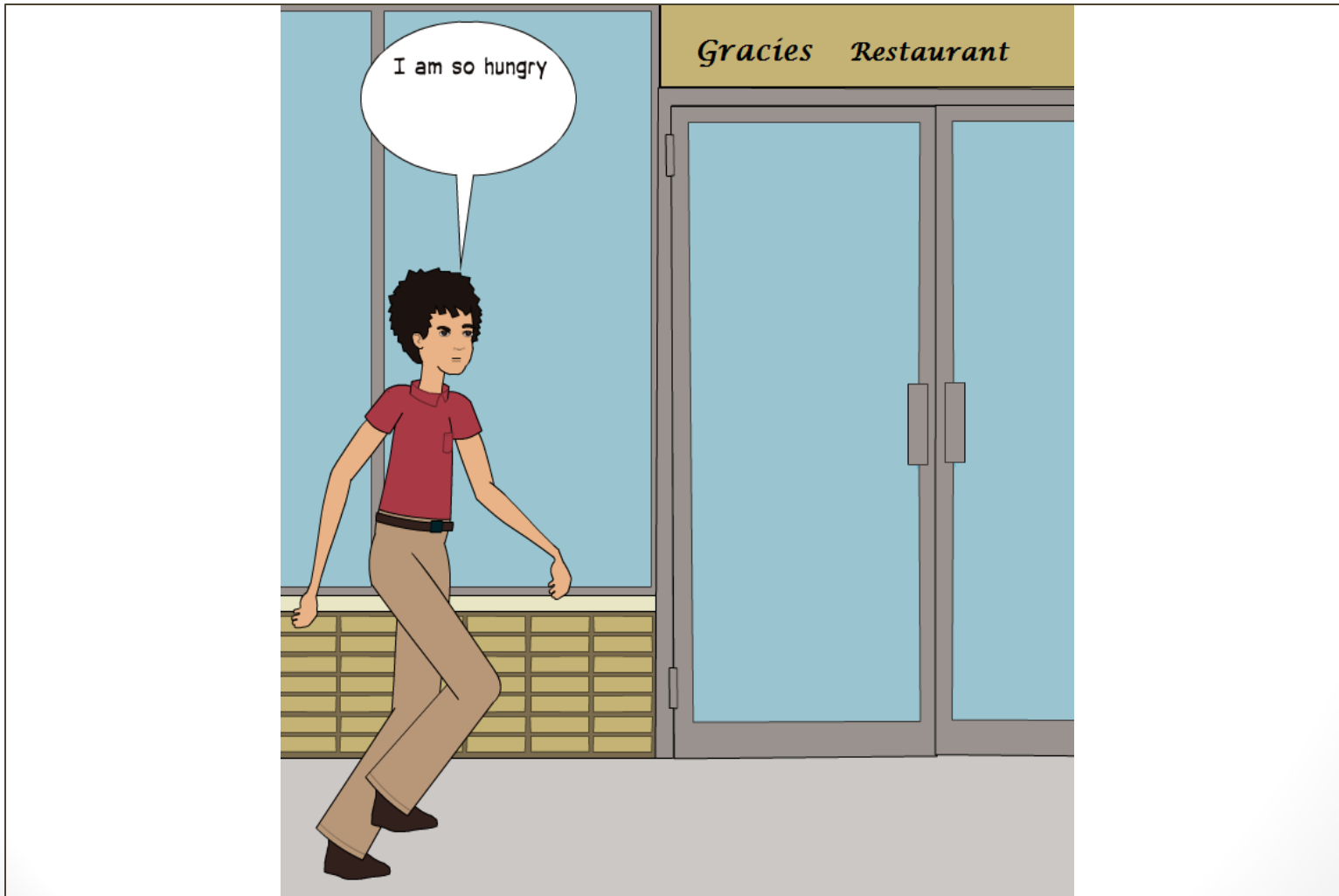
to cultural believes).

30

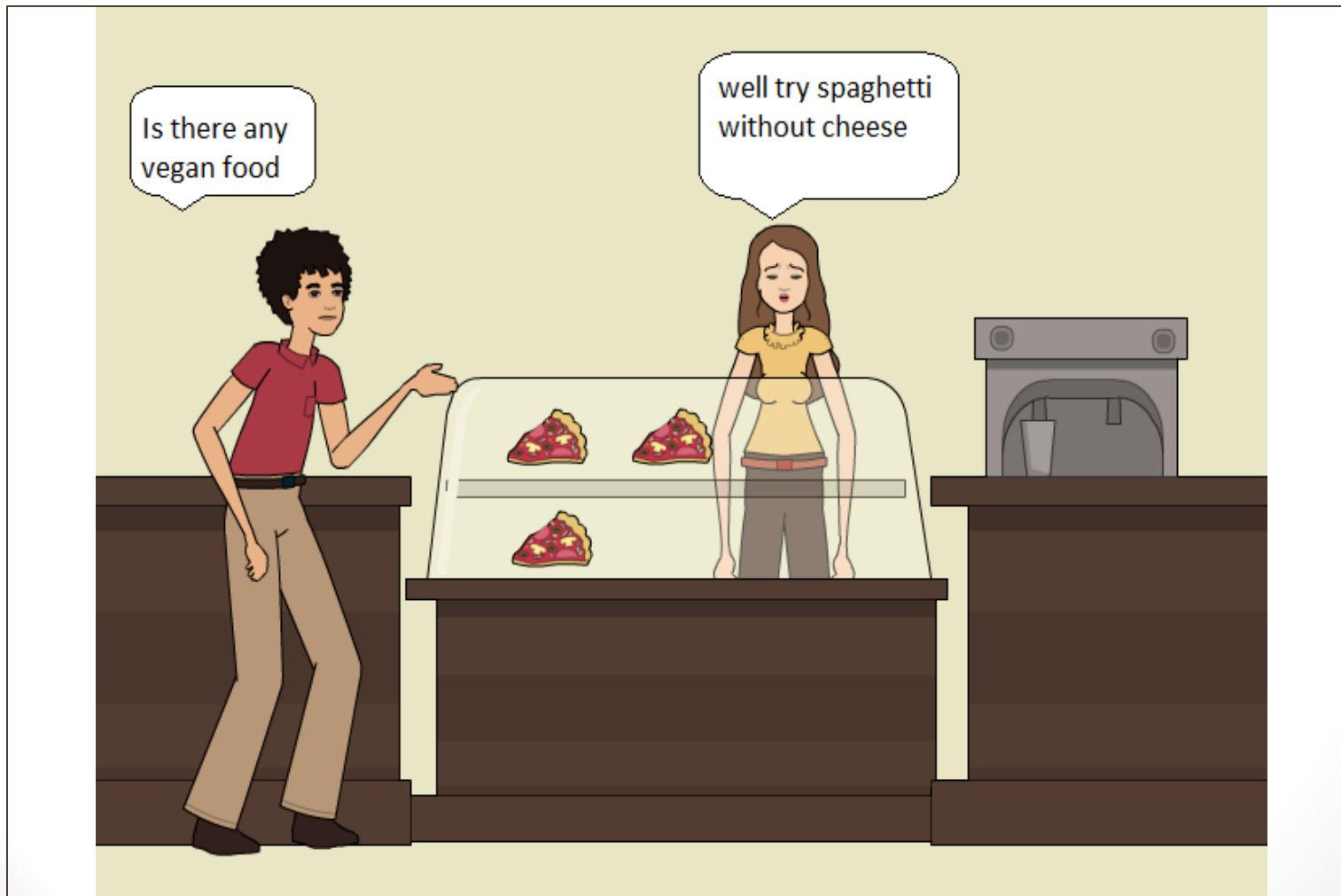# SCENARIOS

FIRST SENARIO

First Scenario

33

First Scenario (Cont.)

First Scenario (Cont.)

First Scenario (Cont.)

36

First Scenario (Cont.)

First Scenario (Cont.)

First Scenario (Cont.)

SECOND SCENARIO
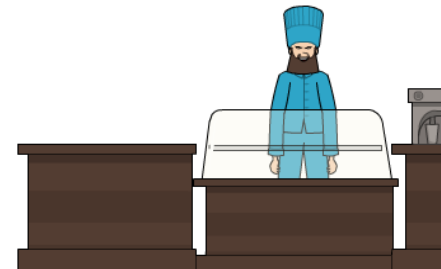
Second Scenario

41

Second Scenario (Cont.)

42
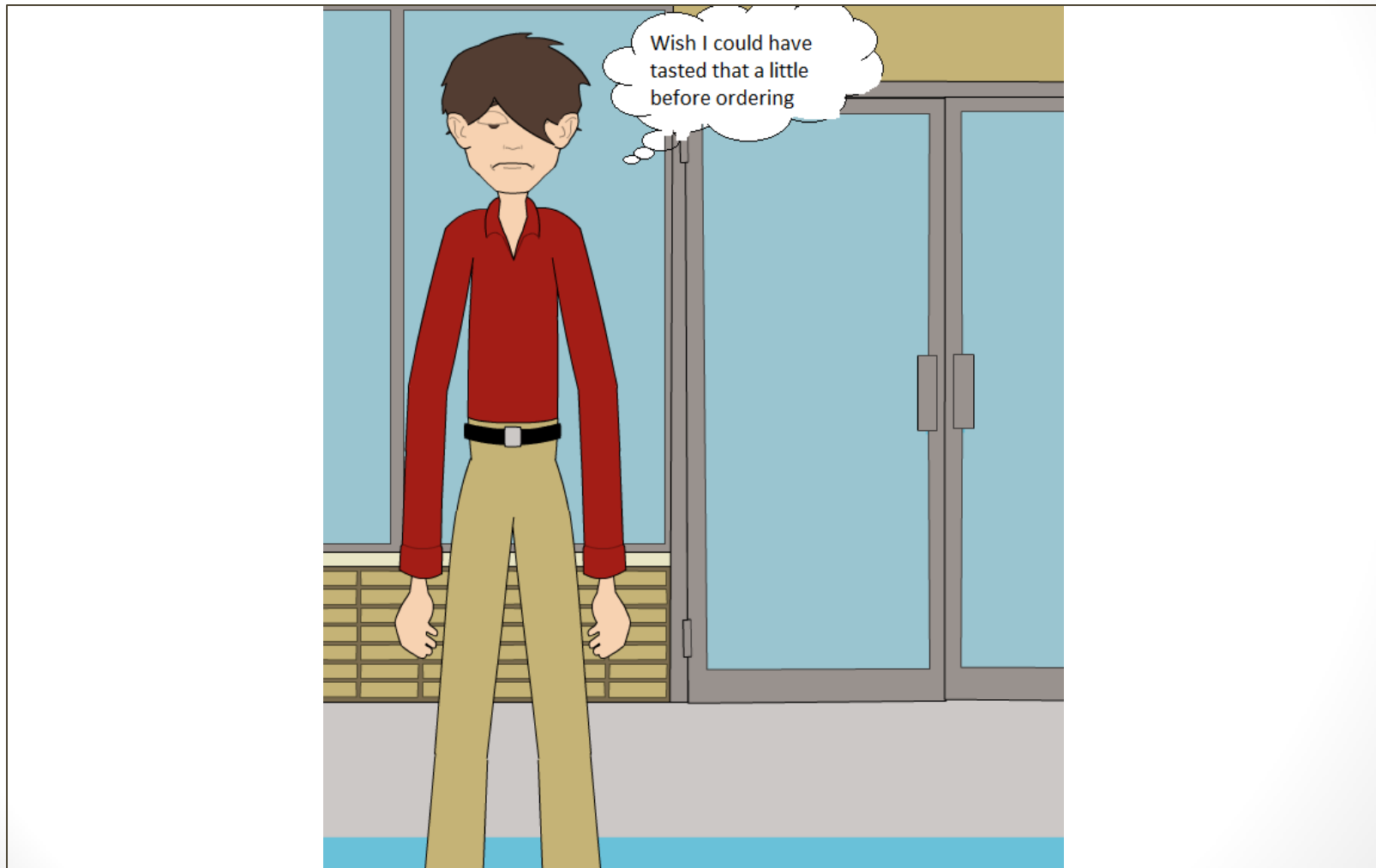
Second Scenario (Cont.)

43

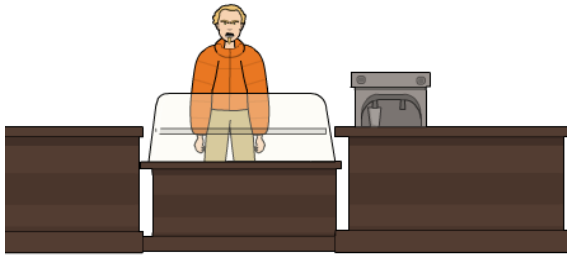# Second Scenario (Cont.)

11/6/12

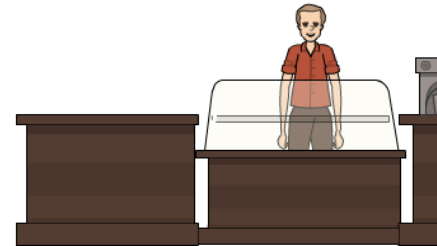# Second Scenario (Cont.)

45

Second Scenario (Cont.)

11/6/12

THIRD SCENARIO
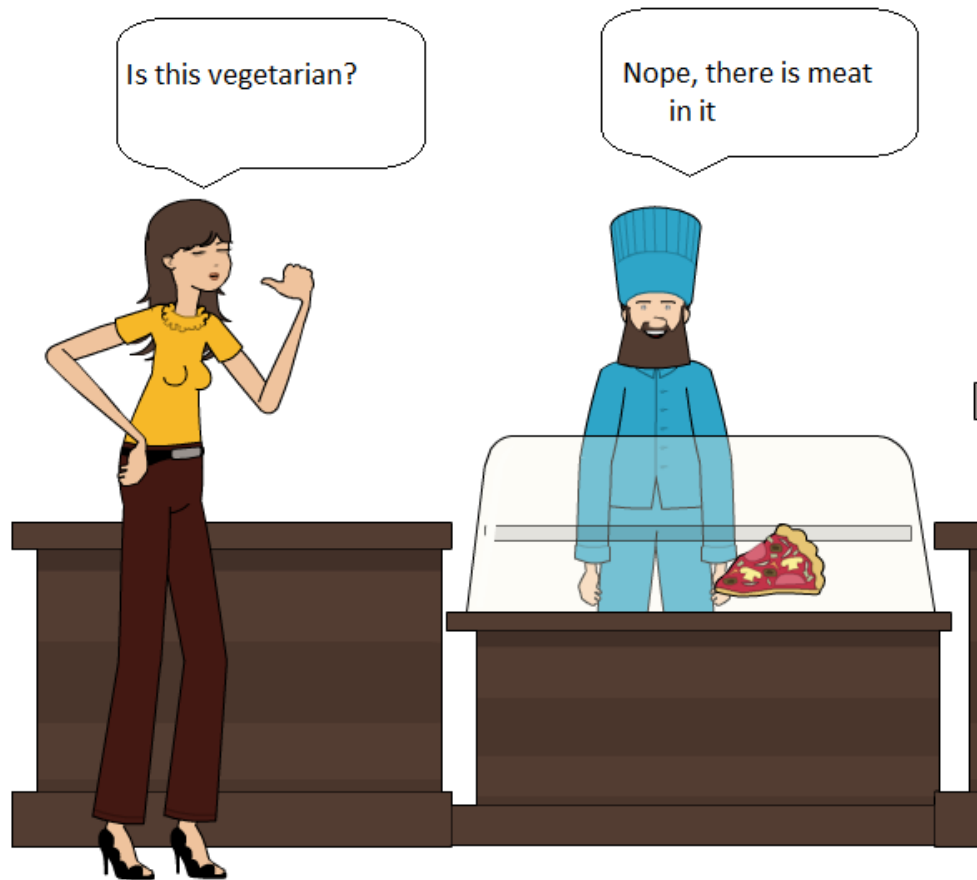
Third Scenario

Third Scenario (Cont.)

11/6/12

Third Scenario (Cont.)

Third Scenario (Cont.)

Third Scenario (Cont.)

Third Scenario (Cont.)

53
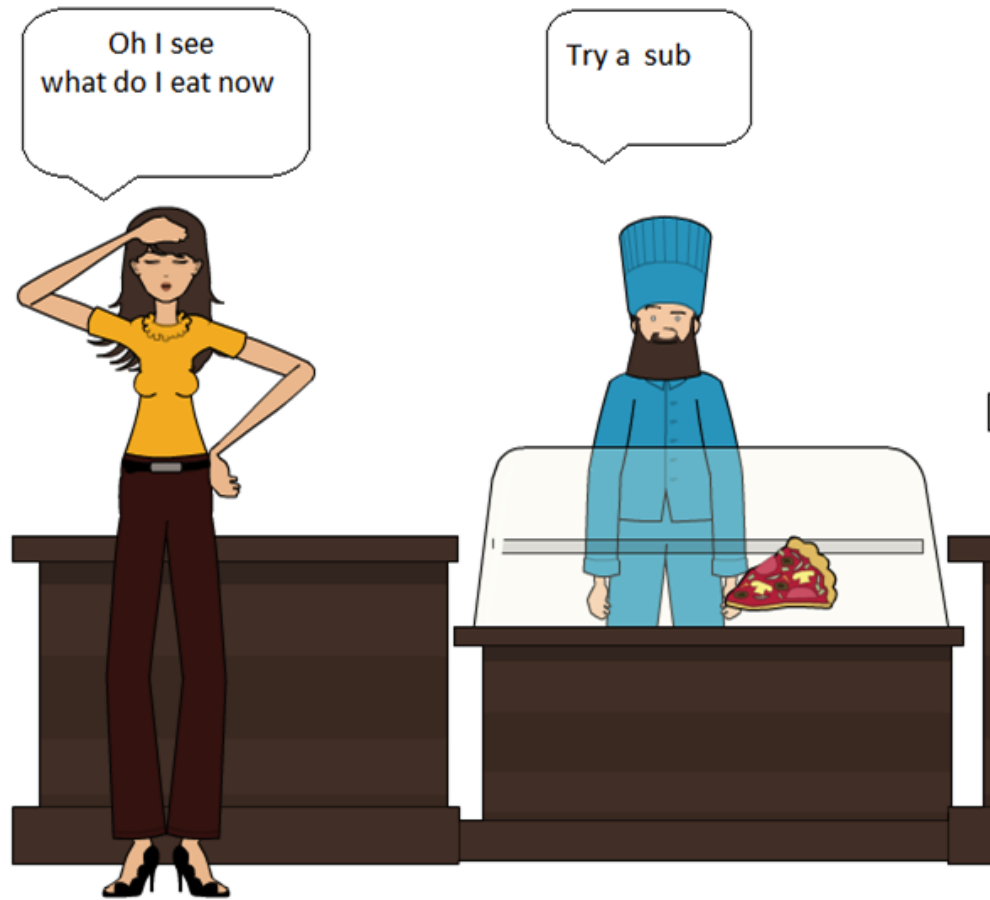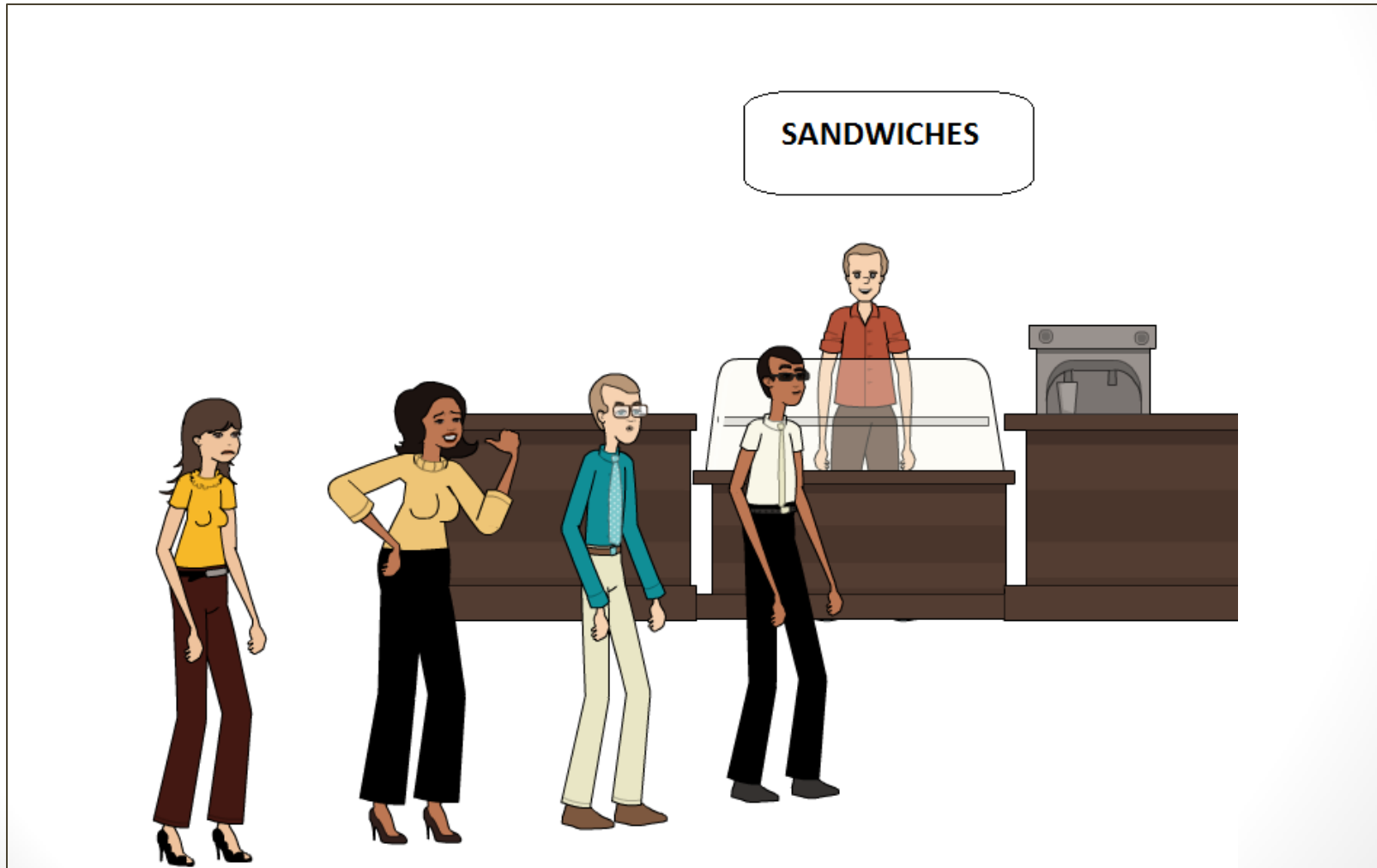
CONSTRAINTS

Constraints

- **Staff:**

1. Limited staff at the dining centers *(Usually student or staff manager will solve customer's query).*

2. Employees are not familiar with all food flavors.

Constraints (Cont.)

- Staff.
- Employees are not familiar with all food flavors.
- **Glass Walls at station obstruct hearing.**

Constraints (Cont.)

- Staff.
- Glass Walls at station obstruct hearing.
- **Budget cost to build a front (help) desk.**

Constraints (Cont.)

- Staff.
- Glass Walls at station obstruct hearing.
- Budget cost to build a front (help) desk.
- **Language** *(Either not speaking English or sign language).*

THE SOLUTION

Solution

- We came up with a website solution.
- User logins with his/her RIT username.

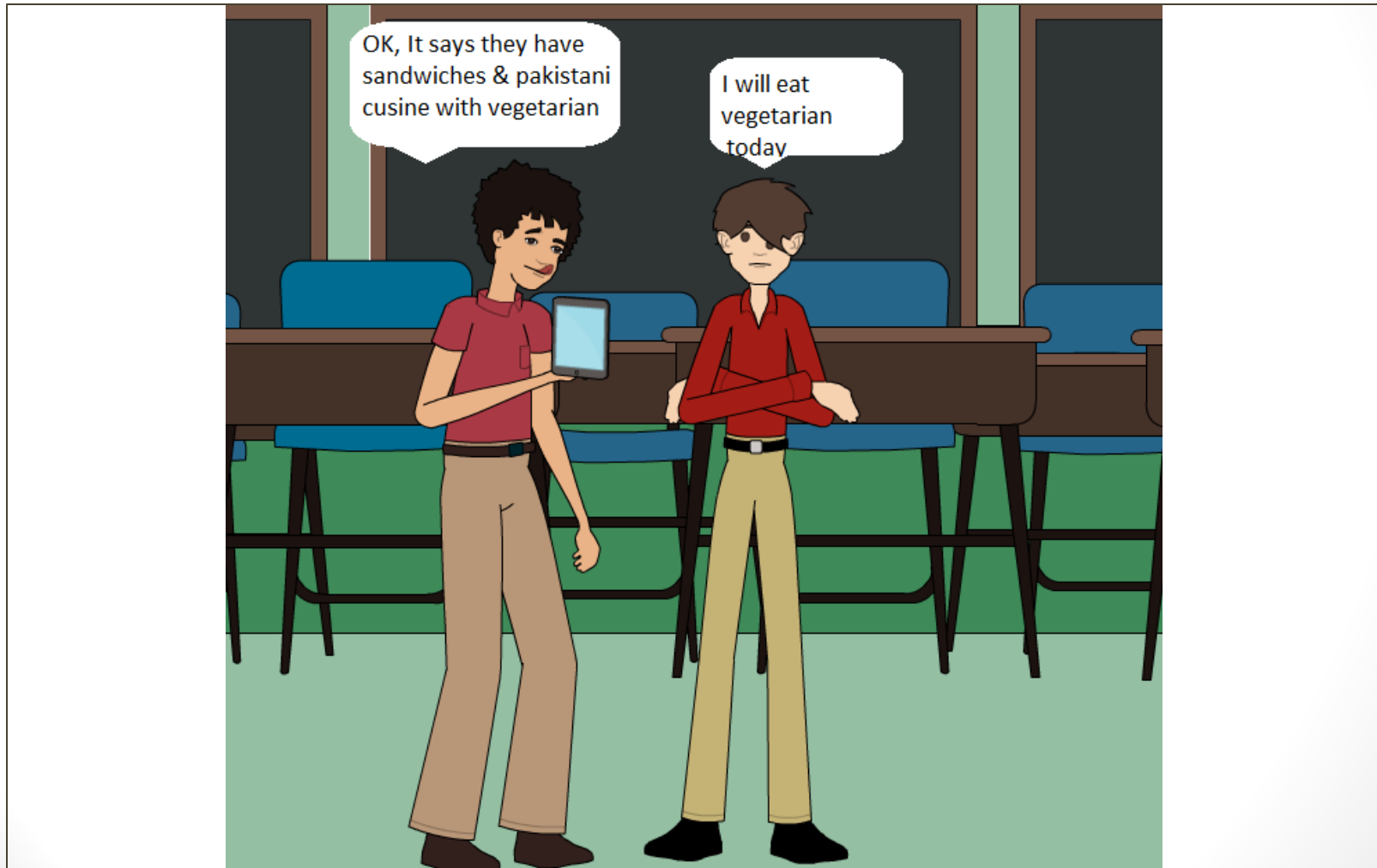|	
haa1145	cxt4434
Sxo9987	noa7622
Lom3333	rxm1991

Solution (Cont.)
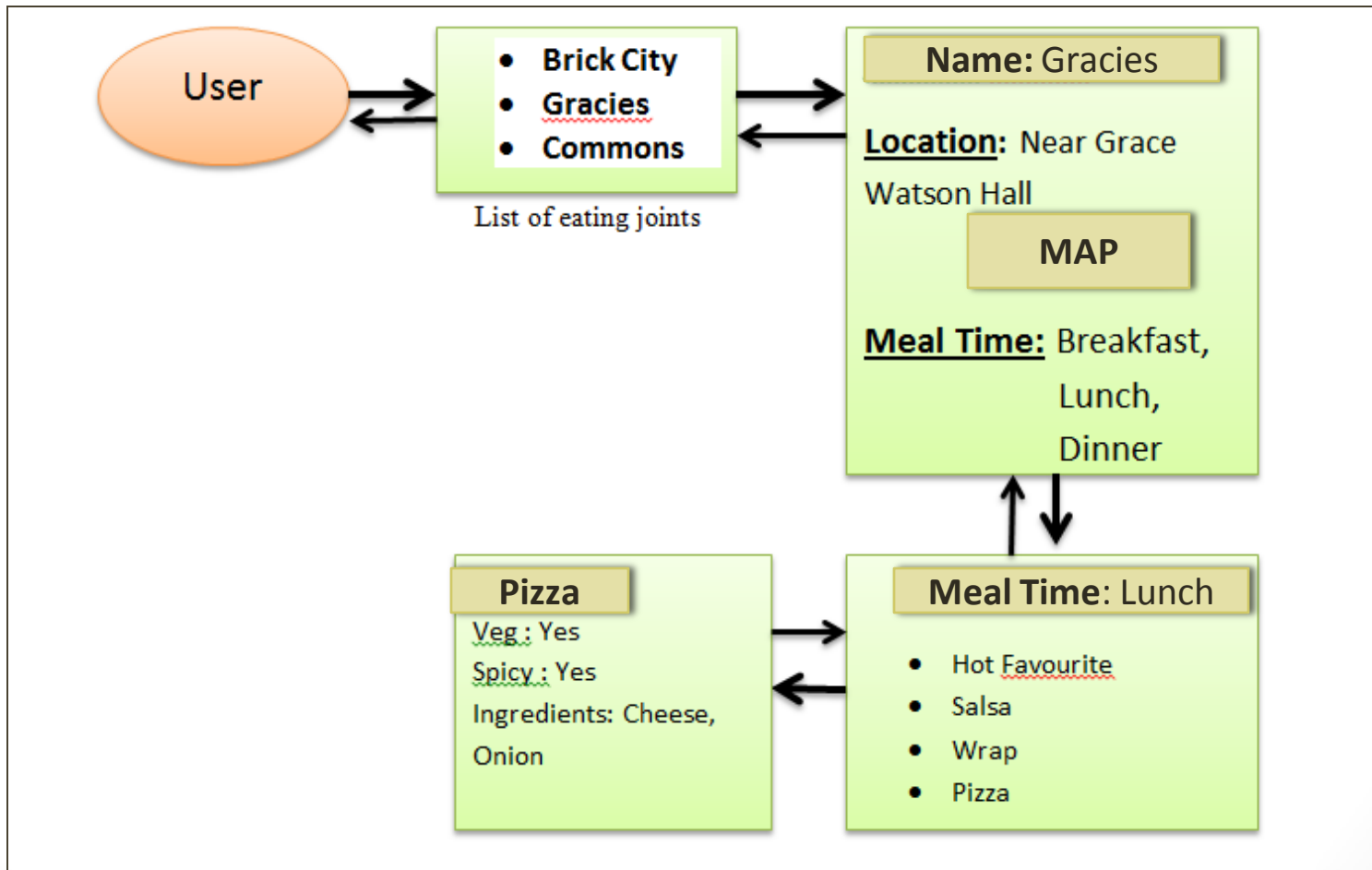
Solution Scenario

Solution Scenario (Cont.)

Solution Scenario (Cont.)
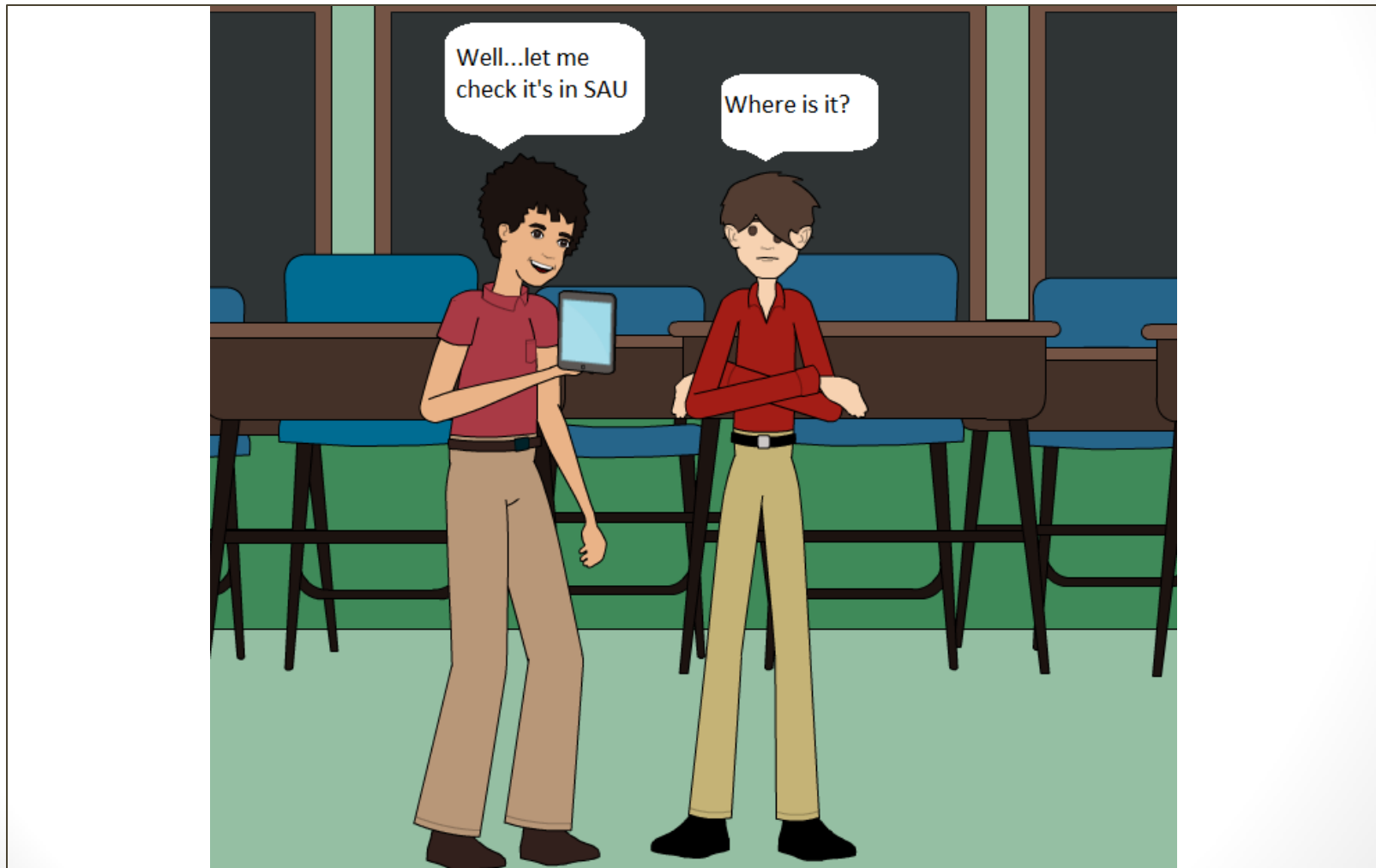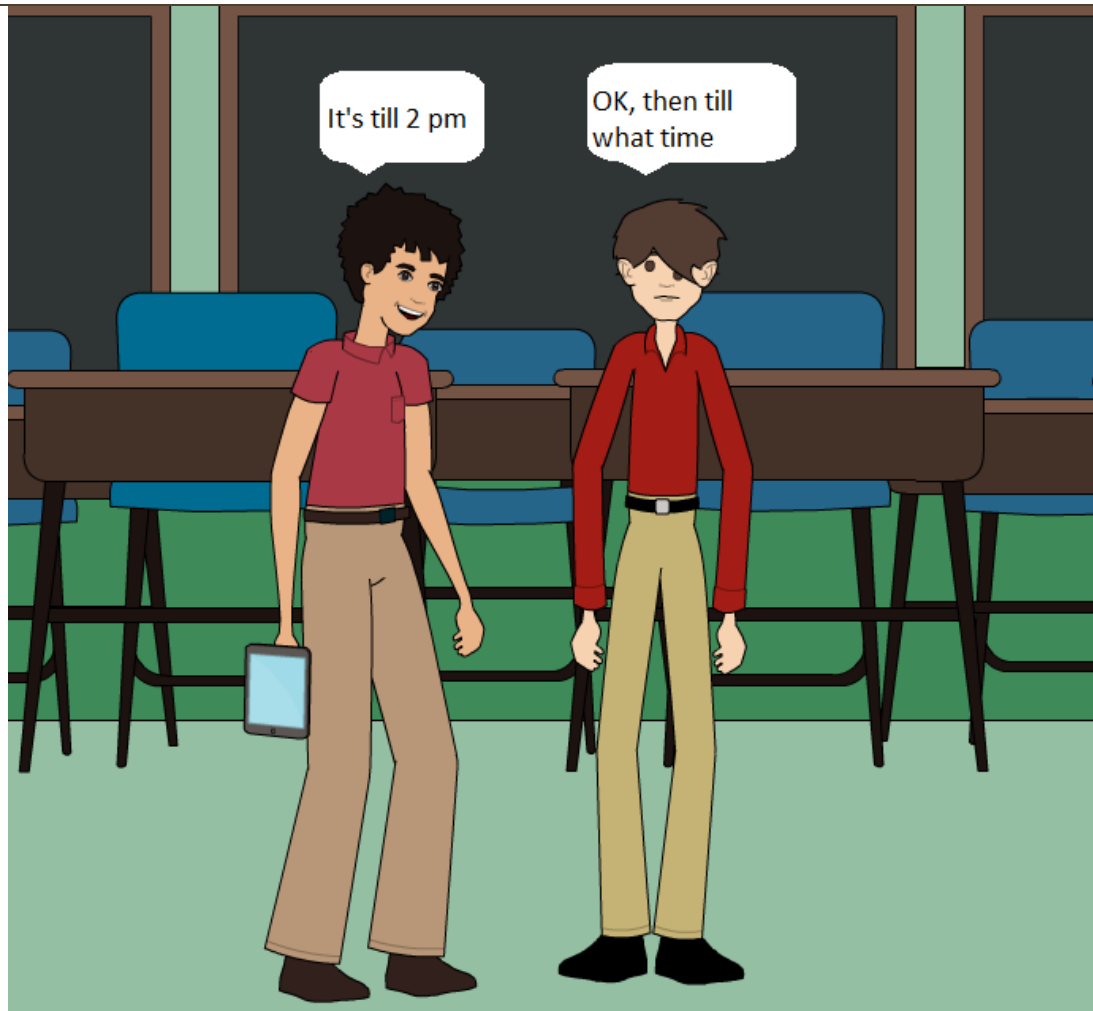
Solution Scenario (Cont.)

Solution Scenario (Cont.)

Solution Scenario (Cont.)

DESIGN REQUIREMENT

Design Requirements

- Interactive website with user logging with RIT account
- Interconnected system ton inform customer about daily menus, special items, opening and closing hours and hot favorite items for the day
- Provide comments about a particular cafe

WHAT WE HAVE LEARNED

What we Have Learned

- Since the first class until today, we have learned new information.

- Here we are going to talk about what we learned from Norman's 7 actions.

Goals

Intention to act

Evaluation of interpretations

Sequence of actions

Interpreting the perception

Execution of the action sequence

Perceiving the state of the world

THE WORLD
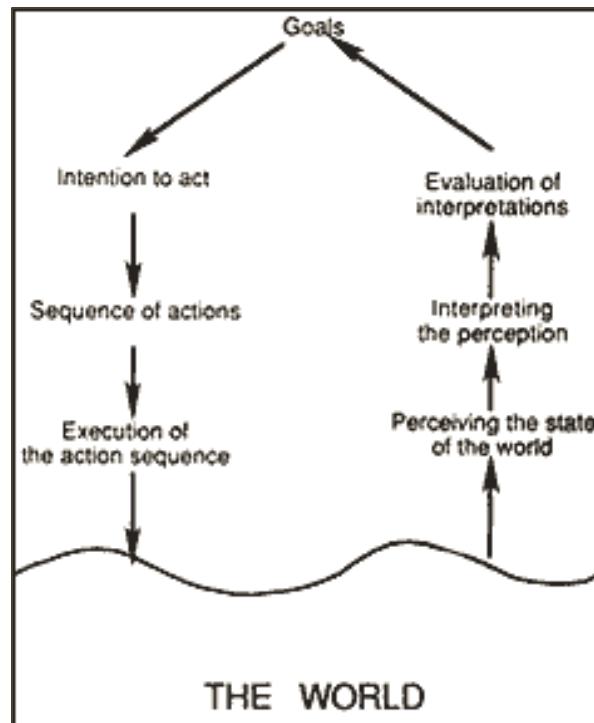
What we Have Learned (Cont.)

- Emotional Action:
  - ◇ Example: Salsa.

What we Have Learned (Cont.)

- Opportunistic action:
  - ✧ Example: Choose shorter queue.

What we Have Learned (Cont.)

- The gulf of execution and evaluation
  - Example: Shuffling queues

11/6/12

What we Have Learned (Cont.)

- Making mistakes: User at fault

  Unable to perform a simple task ->Stupidity

- Lecture Example: Did you read the manual?
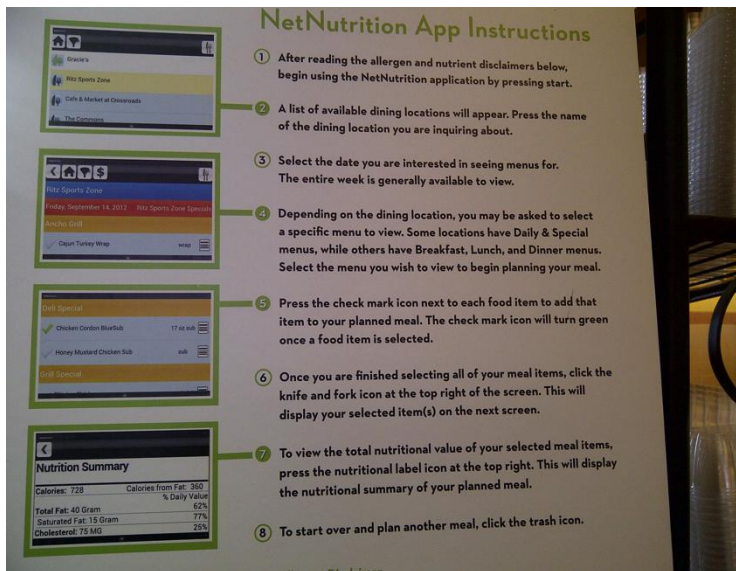
  (Complex Stereo manual)

  Our example: Food Menu

FUTURE WORK

Future Work

- We wish to study some more dining areas on campus
- Look further into smart nutrition tab introduced lately
- Compare it with the solution we provided
- Improve our solution based upon the nuances we found in the nutrition tab

11/6/12

Future Work (Cont.)

- Current smart nutrition app deployed on campus

Future Work (Cont.)

- Add more features to our webpage as follows:

  - Make it a mobile app

  - After swiping their RIT ID to pay, whatever they ordered gets recorded into system

  - Send alerts on RIT email on special menus to users based on their taste

Thank you for listening

Q & A