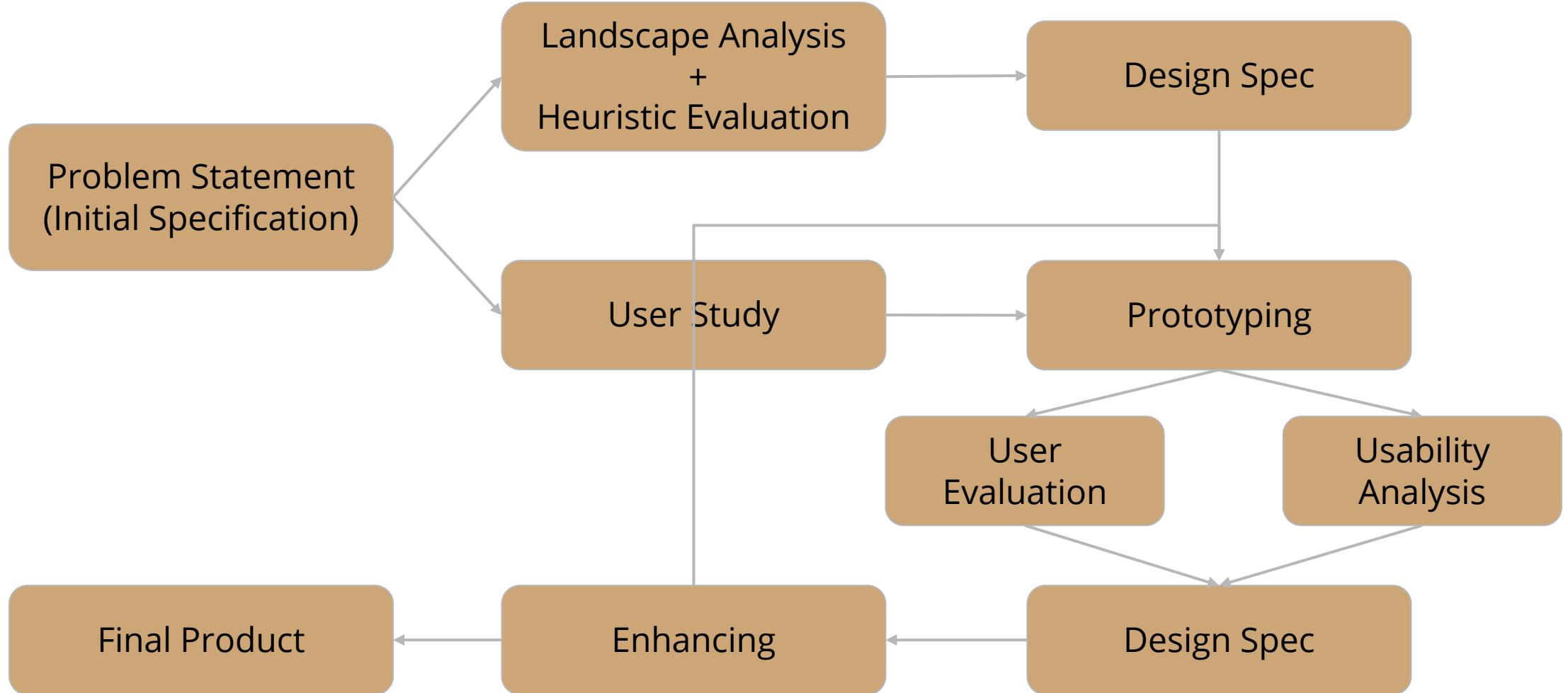




Quiz Me

Group 4: Feiyang Qian, Merline Paul, Prathamesh Marathe, Vishal Karande, Christopher Frye

The process of design



Problem Statement (Spec 0)

We aim to combine and refine a **web-based educational quiz platform** for **quick and easy assessment** of the **academic performance on self-selected topics** by **students**.

Clients expected features

- Integrated, unified interface
- Text as well as Visual based test
- Centralized leaderboard
- Immediate Feedback
- Clear sense of direction

User Studies

User Study: Identify Users

Types of users:

- Students in school of dental medicine/pharmacy
- Professors
- TAs

User Study: User Goals + Tasks

Students

- Survey Questions :
 - How did you find out about quiz games?
 - How do you use the application?
 - How often do you use the application?
 - Why did you choose this tool rather than others?
 - What do you value most of about this application?
 - What goals do you have while using the application?

Professors

- Face-to-face interview

User Study: User Goals + Tasks

Students

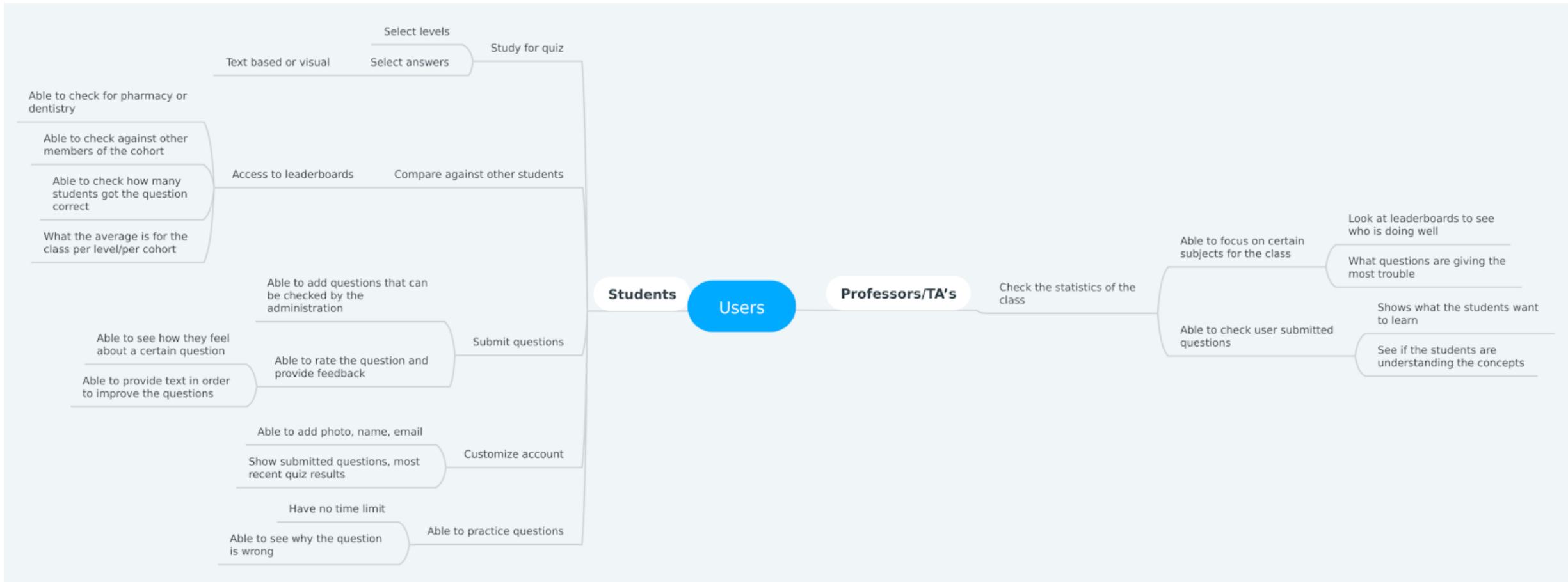
- Study for exams/tests
 - Select levels
 - Select answers
 - submit questions
- Compare against other students
 - Access to leaderboards
 - Able to check for pharmacy or oral pathology
 - Able to check against other members of the cohort
 - Able to check how many students got the question correct
 - What the average is for the class per level/per cohort

User Study: User Goals + Tasks

Professors/TA's

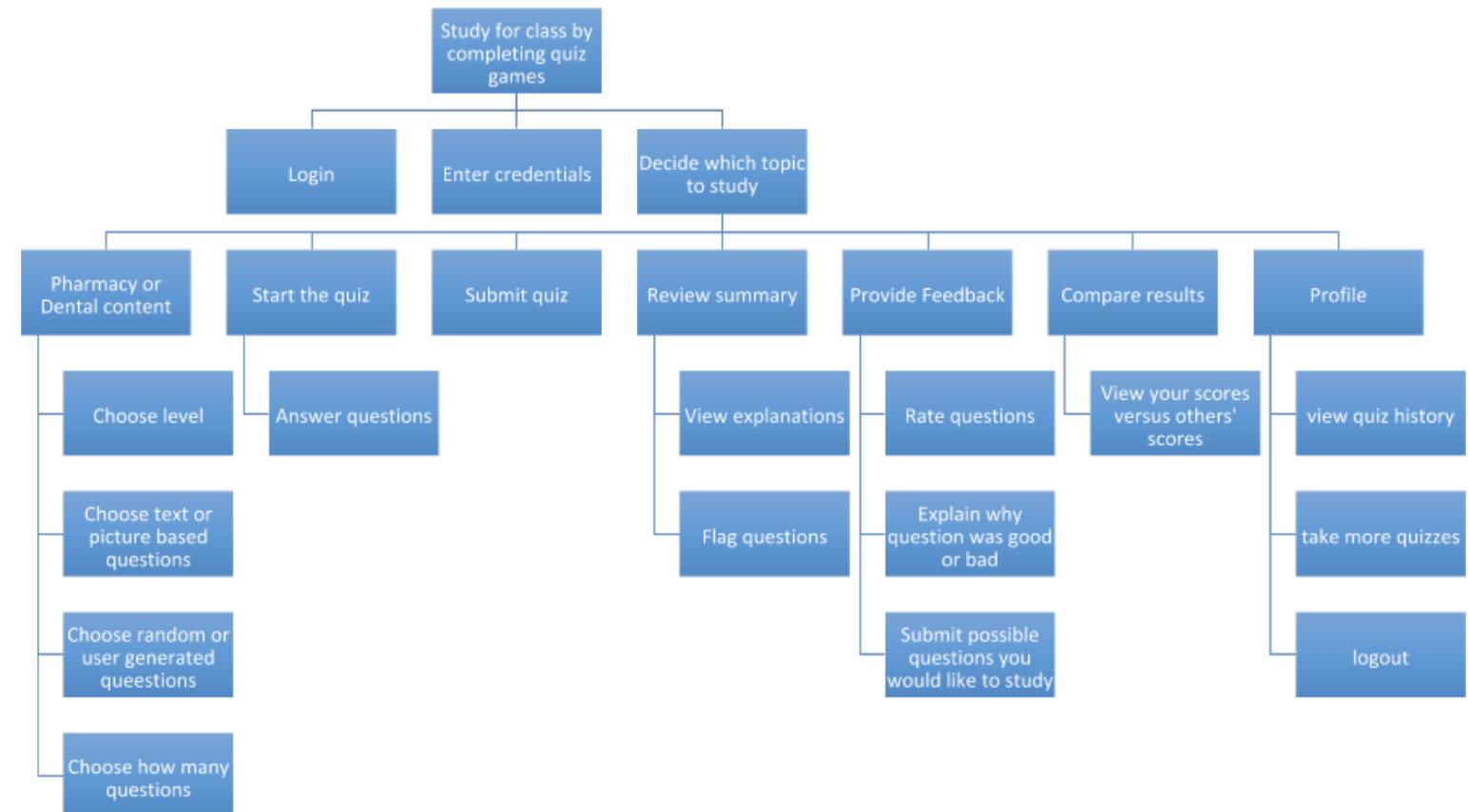
- Check the statistics of the class
 - Able to focus on certain subjects for the class
 - Look at leaderboards to see who is doing well
 - What questions are giving the most trouble
 - Able to check user submitted questions
 - Shows what the students want to learn
 - See if the students are understanding the concepts

User Study: User Goals + Tasks



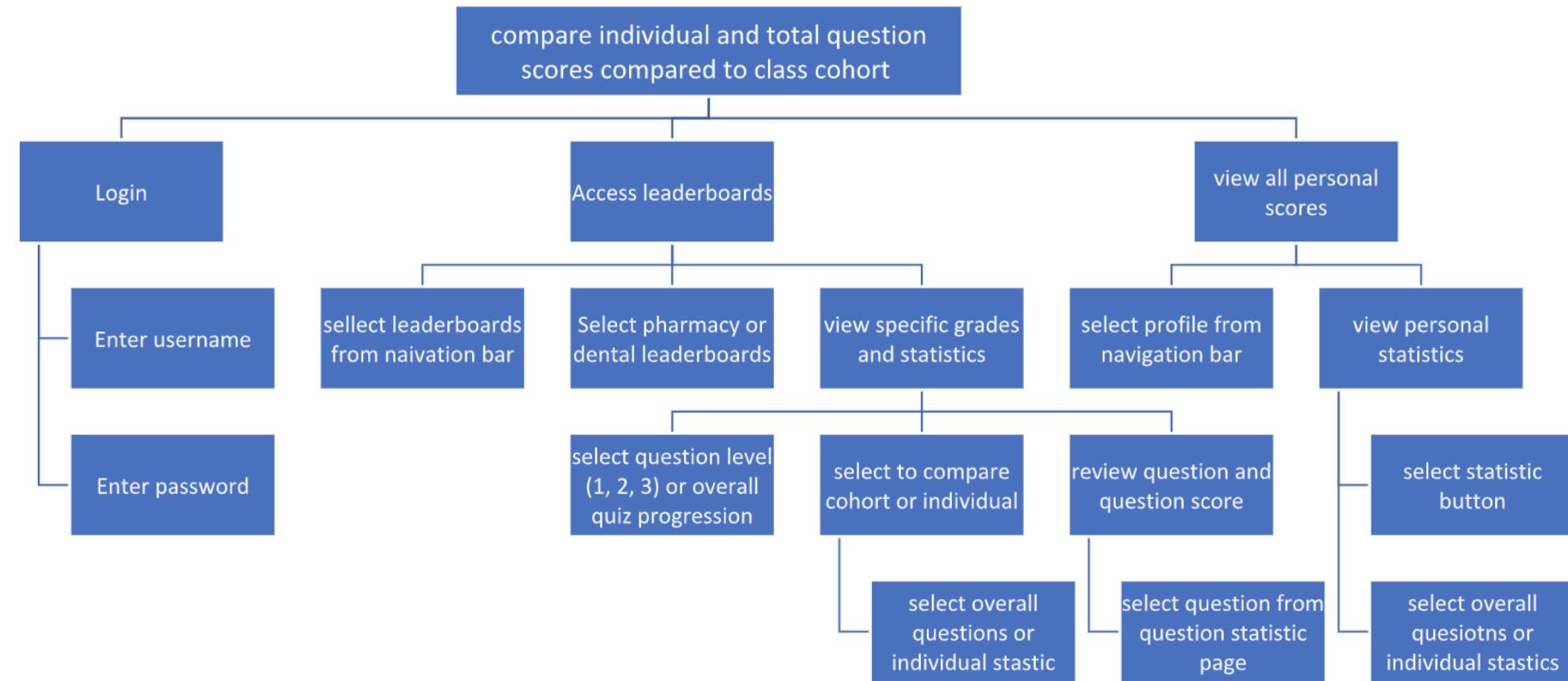
User Study: User Goals + Tasks

The hierarchical tasks users would perform when they want to study for tests.



User Study: User Goals + Tasks

The hierarchical tasks users would perform when they want to compare themselves with other users.



User Study: Primary Persona



Emma Hyde

“I need a more efficient way to study for the test!”

Age:

24

Gender:

Female

Occupation:

Ph.D. Student

Area:

Dental Medicine

Status:

Single

Location:

Pittsburgh, PA

Characters:

Hardworking,
Protective,
Motivational

Frustrations

- Doesn't have much time to read through the entire textbook before the tests
- Doesn't have a lot of experience with online quiz system
- Doesn't want to have her real name displayed in the leaderboard

BIO

Emma is a first-year Ph.D. student in the School of Dental Medicine in the University of Pittsburgh, whose family are all in Boston, MA. It is her first time in Pittsburgh so she wants to balance her academic and social life. During her leisure time, Emma plays the violin and she is a big fan of baseball. She is a quite goal-oriented and focused person but she is sometimes unconfident about herself. Thus, she is very concerned with feedback from others. She would like to see the statistics of her own performance throughout time and how she is doing with the quiz compared to her classmates in an easy way.

Personality

(10)

Introvert	3	Extravert
Sensing	4	Intuition
Perceptive	6	Judging
Feeling	7	Thinking

Technology	(0: very bad; 10: expert)
IT and Technology	6
Software	5
Mobile Apps	7
Social Networks	7

Needs

- Find an easy and efficient way to prepare for the following tests
- Know her own progress on the subject
- Have a rough estimation of how she is doing compared to her classmates

Landscape Analysis + Heuristic Evaluation

Landscape Analysis

Socrative

- Quizzes can be viewed after completion by the user with easy shortcuts provided.
- Ability to conduct parallel quizzes with control over deletion if still active.
- Easy navigation allowing for jumping between questions as well as quick feedback on submission.
- Can be timed according to either the user/moderator along with a function to share via social media.

Landscape Analysis

Kahoot

- Provision to use kahoot as a student/ teacher/ socially/ at work
- Provision to explore Kahoot games/quizzes before signing up
- Provision to add user interests so that Kahoot experience can be personalized
- Quiz statistics
- Game options for any given quiz
- Consistent design while creating quizzes, jumbles, discussion and surveys

Landscape Analysis

Continuing Medical Education (CME)

- Shows instructions before beginning starting quiz rather than home page
- Immediate feedback after answering question
- Summary of user's quiz
- Additional practice resources available after quiz

Heuristic Evaluation

On the original two systems

1) WHICH ANTIDEPRESSANT IS CONTRAINDICATED IN PATIENTS WITH SEIZURE DISORDERS, OR PRIOR/CURRENT DIAGNOSIS OF ANOREXIA OR BULIMIA?

DESYREL

BUPROPION

AMITRIPTYLINE

ELAVIL

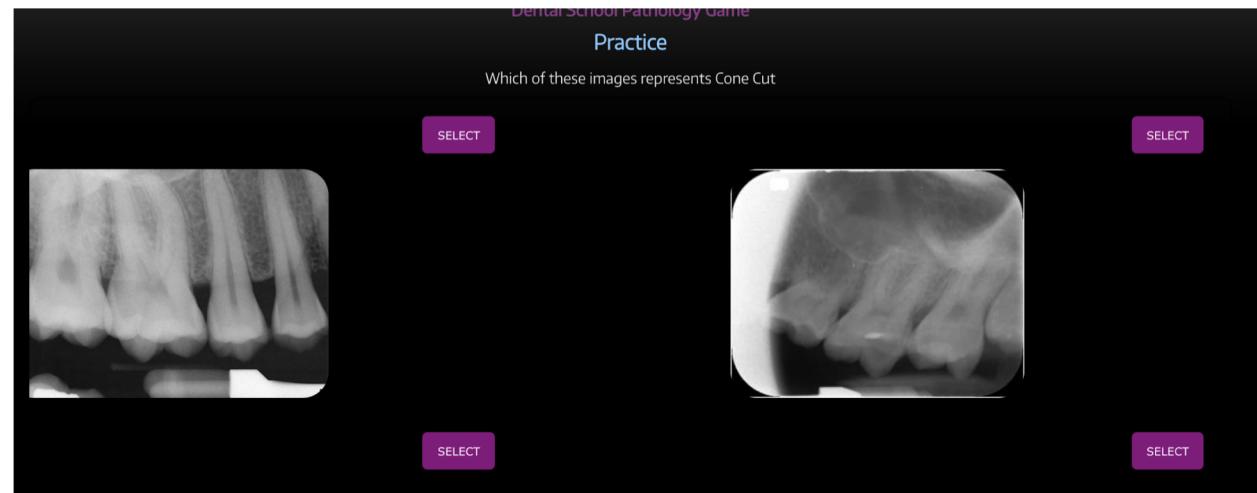
∞

TOTAL SCORE: 0

Dental School Pathology Game
Practice

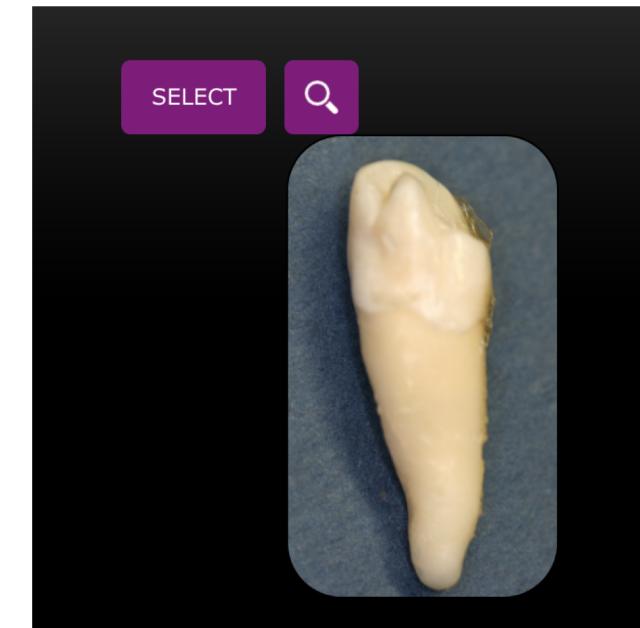
Which of these images represents Cone Cut

SELECT



SELECT

SELECT

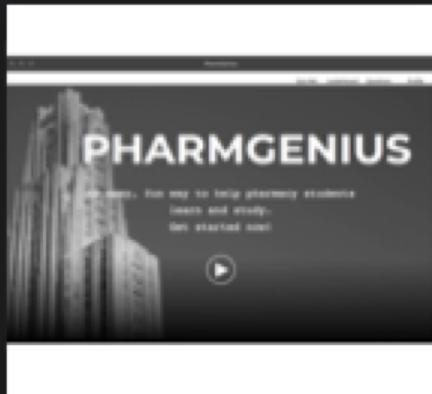


Prototyping + Enhancing

Main



Pharmacy



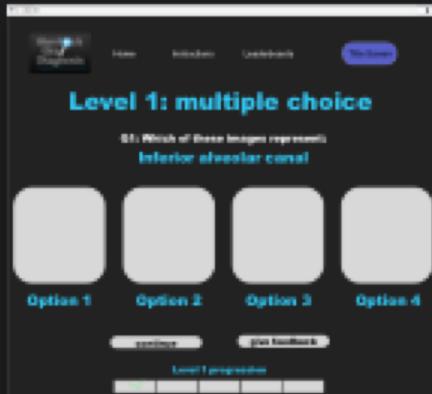
Pharmacyv2



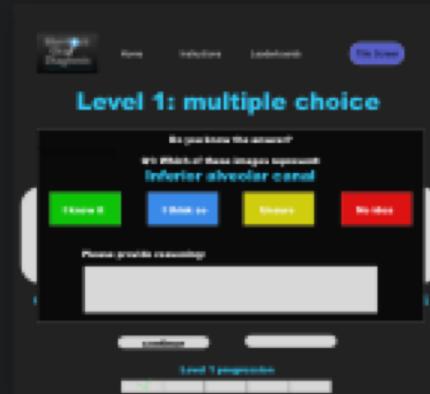
Pharmacyv3



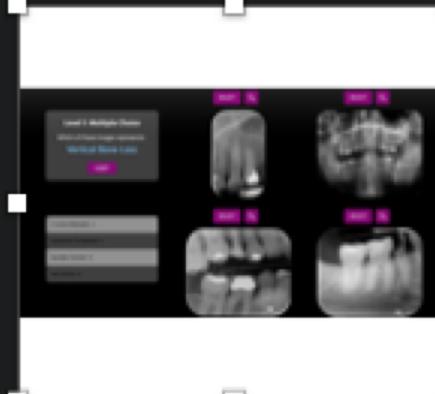
DentalMedicineMain



Desktop Copy



Desktop



User Evaluation

Professors

- Make the two sites more consistent and cohesive
- Provide users with strong and clear feedback so that they could know exactly what the page is meant for and what each function is used for.
- Make sure that users can switch between the two quiz sites.

Leaderboards

Leaderboard		
Rank	Name	Points
1	John Doe	100
2	Jane Smith	80
3	Bob Johnson	70
4	Sarah Lee	60
5	David Wilson	50

Login



Selection Screen



PharmacyHome



Questio...lection

QuestionMain



Questio...edback



Challenge



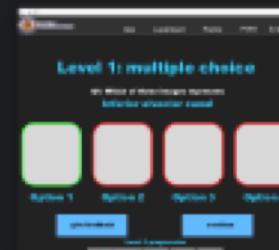
DentalHome



DentalQuestion



Desktop Copy



Challenge



ProfileDental



Practice



Leaderboards



User Evaluation

Professors

- The users of the website will not be limited to Pitt students
 - no University of Pittsburgh photographs
 - no separating the quizzes for different schools/departments

User Evaluation

Students

- Inconvenient navigation which make jumping around difficult while using flash cards
- Difficulty in understanding the categories section.
- Show immediate feedback of the current score.
- Option to view all questions of the quiz at the same time in addition to the orthodox one question at a time approach.
- An option to know how many questions were sent by other people.

Usability Analysis

Cognitive walkthrough

- An efficient way of conducting usability testing on a given system or site.
- They cannot provide the detail and depth that real users can in a 'user testing' scenario but can give an overview of a system or site and an idea of its usability.
- 4 questions are asked which are as follows :
 - Is effect of current action same as users goal?
 - Is action visible?
 - Will user recognize action as the correct one?
 - Will user understand feedback?

Usability Analysis

A series of steps when users need to study for a test:

1. signing in
2. entering profile information
3. selecting quiz type
4. answering questions
5. receiving feedback and explanation of the answers submitted
6. giving feedback to the question
7. adding new questions to the system.



Usability Analysis

- Shapes and texts should be responsive to the change of display size
- Make the quiz selection page consistent in both subjects
- Provide feedback/validation on forms if there exists missing information
- Make current score visible
- Change background colors choices
- Add the next button on the question feedback page so that users can go to the next question once they submitted the feedback
- Offer a restart option when the users have finished one quiz
- Add feedback to the oral pathology quiz page as well
- When users submit new questions, make sure that they can select the subject and level of difficulty.

Product (Website) 1

The image displays a 4x4 grid of wireframe screenshots from a medical quiz website, with the last cell in the fourth row left empty.

- Row 1:**
 - Sign Up for New Users: A form for creating a new account with fields for Username, Password, and Repeat Password.
 - Welcome Home, USER: A dashboard showing the user can choose subjects like Oral Pathology or Pharmacy.
- Row 2:**
 - Oral Pathology Quiz: A multiple choice question about the inferior alveolar canal.
 - Oral Pathology Quiz: A multiple choice question about antidepressants contraindicated in seizures.
 - Oral Pathology Quiz: A multiple choice question about antidepressants contraindicated in anorexia or bulimia.
 - Pharmacy Quiz: A multiple choice question about antidepressants contraindicated in seizures.
- Row 3:**
 - Pharmacy Quiz: A multiple choice question about antidepressants contraindicated in anorexia or bulimia.
 - Pharmacy Quiz: A multiple choice question about antidepressants contraindicated in seizures.
 - Pharmacy Quiz: A multiple choice question about antidepressants contraindicated in anorexia or bulimia.
 - Pharmacy Quiz: A multiple choice question about antidepressants contraindicated in seizures.
- Row 4:**
 - Add Questions: A form for adding new questions with fields for Subcategory, Enter Question, and four Option fields.
 - Top User Scores: Leaderboard tables for Oral Pathology and Pharmacy quizzes.
 - User Feedback: A table showing user names and scores.

User Evaluation

Professors

- Styling -- centered
- When users select an option, they don't remember which one they chose
- The question is cut off by the choices.

Option 1

Enter response

Upload File for Image

Option 2

Enter response

Upload File for Image

Option 3

Enter response

Upload File for Image

Option 4

Enter response

Upload File for Image

Choose Correct Answer:

● 1 ● 2 ● 3 ● 4

Final Product

Final Product!

Quiz Me!

A centralized hub where students can practice quiz questions, submit user questions, and compare statistics to their classmates.

Email address:

Password:

Re-enter Password:

Create a new user

Username/Email:

Password:

Re-enter Password:

Welcome USER

Please select the subject you would like to quiz yourself in:

Oral Pathology

Oral Pathology users should answer to determine correctly if it is a primary or secondary lesion. You will also be asked to identify the location of the lesion and provide a brief explanation of the disease.

Pharmacy

New users on Pharmacy should answer to determine correctly if it is a contraindication or interaction. You will also be asked to identify the drug and provide a brief explanation of the disease.

Other subjects

Oral Pathology

Choose the parameters for your quiz

Category: Oral Pathology

Level: 100

Number of Questions: 10

Seconds per Question: 10

User questions only Shuffled

Oral Pathology

Level 1: Multiple Choice

Q1: Which of these images represent:

Interior Alveolar Canal

A B C D

Current Score: 10 points Time Left: 5 sec

Level 1 progress

Oral Pathology

Level 1: Multiple Choice

Q1: Which of these images represent:

Interior Alveolar Canal

A B C D

Current Score: 10 points Time Left: 5 sec

Provide Feedback +

Level 1 progress

Oral Pathology

Level 1: Multiple Choice

Q1: Which of these images represent:

Interior Alveolar Canal

A B C D

How I felt about knowing the answer:

What was difficult about this question? How can this question be improved?

Pharmacy

Choose the parameters for your quiz

Category: Pharmacy

Level: 100

Number of Questions: 10

Seconds per Question: 10

User questions only Shuffled

Pharmacy

Q1: Which antidepressant is contraindicated in patients with seizure disorders, or prior/current diagnosis of anorexia or bulimia?

A B C D

Current Score: 10 points Time Left: 5 sec

Level 1 progress

Pharmacy

Q1: Which antidepressant is contraindicated in patients with seizure disorders, or prior/current diagnosis of anorexia or bulimia?

A B C D

Provide Feedback +

Current Score: 10 points Time Left: 5 sec

Level 1 progress

Pharmacy

Did you know the answer?

Q1: Which antidepressant is contraindicated in patients with seizure disorders, or prior/current diagnosis of anorexia or bulimia?

A B C D

How I felt about knowing the answer:

What was difficult about this question? How can this question be improved?

User profile

View past user submitted questions

User: Username:

Title:

email:

email: finalProject@pitt.edu

class:

Description:

User submitted questions

Oral Pathology:

Pharmacy:

Average score of user out of 100:

Total score:

Level 1:

Level 2:

Level 3:

Level 4:

Top user scores

Compare your results to the class's results for each subject

Oral Pathology

Results	Percent score	Monthly Class score
Total score	100	100
Level 1	100	100
Level 2	100	100
Level 3	100	100
Level 4	100	100

Pharmacy

Results	Percent score	Monthly Class score
Total score	100	100
Level 1	100	100
Level 2	100	100
Level 3	100	100
Level 4	100	100

Create a new question

Please submit a question that will be used by other students to study for future exams!

Enter the problem statement:

Create and select the possible answer(s)

Answer is option A Answer is option B Answer is option C Answer is option D

Enter option A:

Enter option B:

Enter option C:

Enter option D:

Enter explanation on why the answer is correct:

Answer is option A Answer is option B Answer is option C Answer is option D