

# Task Analysis

## CSCI 497H

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### Task Support in Prototype

With the goal of relieving stress, there are a few tasks we have in mind that will hopefully be supported in the prototype. The tasks are:

- Breathing exercise
- Bubble wrap game
- And possibly more stress relieving game choices, depending on time.

### Task Analysis

1. Open app
2. Pick a game to play
  - a. Bubble Pop
  - b. Rock Balancing
  - c. Etc...
3. Play Game
4. Settings
5. Breathing Exercise

Task Order and Notes:

- Step 1 will always be first
- Step 2 will always precede step 3
- Steps 4 and 5 may happen at any point in time as long as Step 3 is not in progress

### Systems Observed

In our initial process of conducting task analysis, we analyzed similar systems that are already in existence. To do this, we downloaded the most popular stress relief games on the iTunes and Google Play market to try out their features and read reviews from other users. Some of the similar systems we directly used ourselves include:

- ***Stress Buster : Stress Relief***  
A good implementation of our tapping to pop bubble wrap game idea. *Stress Buster* has endless levels of bubble popping, shows scoring statistics for the user and even allows you to change the popping sounds, color, and shape of the bubbles. The

simplicity and sound effects were often noted as the most effective parts of the game in removing stress. One criticism that we could improve on is giving a bigger sense of accomplishment when the player beats a level. Keeping note of this feedback from other users will allow us to better shape our own app.

- *Fitbit - Relaxation Exercise*

A good and basic implementation of a breathing exercise can be found built into many current generation Fitbits. The wearable devices will simply walk you through a 2 minute breathing exercise and then a little pixelated animation will appear on your wrist. We hope to expand on this by mimicking the quick and easy breathing exercise, but then giving the user a more accomplished feeling by integrating it into a game.

## **Subset of Tasks**

- a. Relieve Stress
  - i. Control breathing
    - 1. Tap the breathing bar
    - 2. Hold breath until breathing bar lights up
    - 3. Repeat 3 times
    - 4. Tap question mark circle next to breathing bar
      - a. Read information about breathing techniques (in through the nose out through the mouth)
  - ii. Play a game
    - 1. Choose game
      - a. Choose "Bubble Wrap"
        - i. Pop the bubble wrap icons as fast as possible
        - ii. Observe score go up as they pop
        - iii. Proceed to the next level (Always, you can't lose this game)
        - iv. Quit when stress has been reduced
        - v. Receive feedback about your score, how long you played, etc

Plan i: Do 1, 2, 3 in order

Do 4 only if curious about extra information about techniques

Plan ii: Do ai, aiii, aiv, av in order

Do aii if user is motivated by getting high score

## **Challenging Aspects**

One challenge we were faced with was knowing exactly where to start with the task analysis. It was initially difficult to make sure we were actually getting into task analysis and not

just the stereotypical “Use Case.” It was also difficult to breakdown some tasks because a lot of us have little experience in making games, working with Android Studio, and programming with the user in mind. That inexperience makes it harder to envision how we want our tasks to play out specifically. We also did not have the time and resources to conduct a content inquiry, survey, or interview on any potential users. This led us to rely heavily on analyzing the content of existing competitors.

## **Team Member Contributions**

Gavin - Created plans for subset of tasks, helped on Task Analysis

Brett - Helped with Subset of Tasks and Challenging Aspects

Ethan - Organized document. Made edits in each section.

Ryan - Helped with questions 1, 3, and 5