

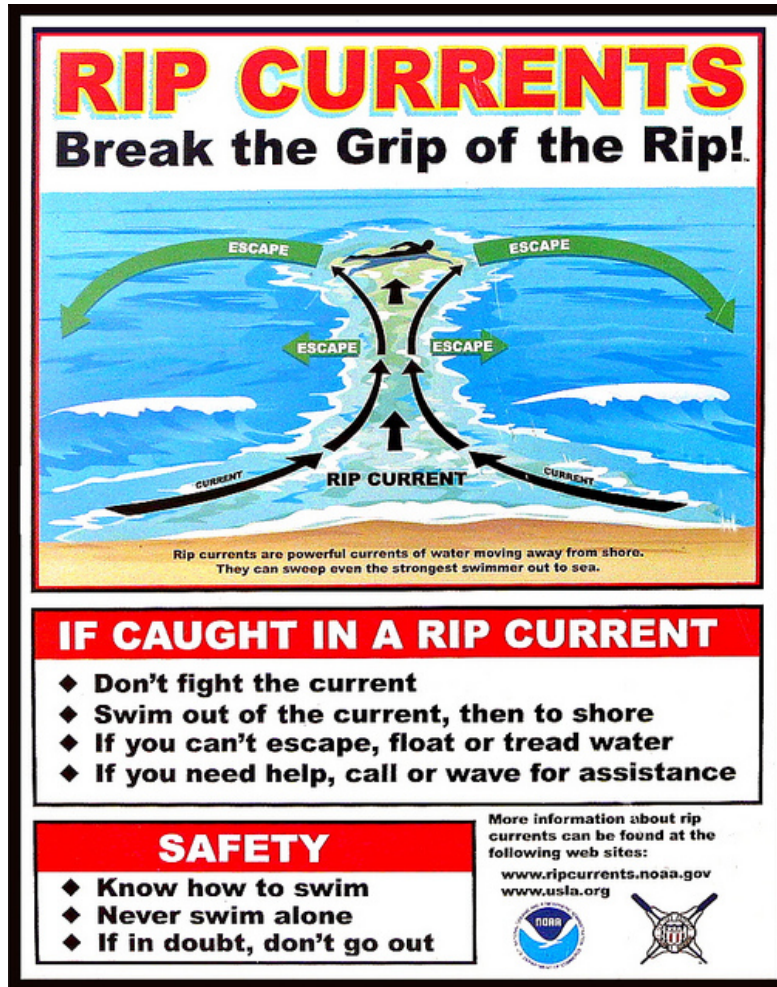
- Names
  - Yahel Nachum
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- Title
  - The Rising Tides
- The project thumbnail (what's the three-sentence overview?)
  - Swimming in the ocean presents a dangerous risk to many people each year that are not properly trained to keep themselves out of danger. Every day about ten people die from unintentional drowning. Our game will teach people how to identify dangers in the ocean and how to increase the likelihood of them surviving if they find themselves in a dangerous situation.
- Target users
  - This game is targeted towards men and young adults. Men were specifically chosen since the Centers for Disease Control and Prevention (CDC) states that "nearly 80% of people who die from drowning are male".
- Delivery platform(s) and justification(s)
  - PC and Smart phones
  - This will provide the largest market for the game.
- Problem Statement
  - People do not have the proper training at swimming and identifying dangerous situations in the ocean.

- Learning Objectives
  - How are open bodies of water different than pools and other controlled aquatic areas
  - Why are drownings and other accidents in open bodies of water common
  - How can swimmers prevent accidents in the water
- Hypothesis
  - By teaching people about how dangerous large bodies of water can be we can prevent water related accidents and accidental drowning.
- Task Analysis
  - Objective
    - Tell people how dangerous the ocean is
    - Tell people what dangers to look for when entering bodies of water
    - Teach people how to handle life-threatening situations
    - Teach people what to do if others are in dangerous situations
  - Steps to take
    - Present information about ocean related dangers
      - Show them that there is a problem (accidents, deaths, saves)
      - Oceans pose different dangers than other bodies of water
        - Show the dangers of the ocean (rip currents, getting hit by a big wave, debris)
    - Identifying dangers in a body of water
      - Rip currents

- Different types of waves
- Dangerous landmarks (jetties)
- How to get out of a life-threatening situation
  - Rip current
    - The three R's
      - Relax: stay calm and float, do not swim against the current swim across it.
      - Raise: Raise an arm to signal for help.
      - Rescue: Float and wait for assistance. Do not panic – people drown in rips because they panic. Obey directions from the rescuer.
    - Swim perpendicular to the rip tide and not against it.
  - Dangerous wave is approaching
    - Always be aware of incoming waves.
    - If a wave is too big/powerful to go over then you should dive under the wave.
  - Coming near a dangerous landmark
    - Don't panic and try to swim against the current.
    - Swim parallel to the current to avoid the landmark.
- What to do if other people are in a dangerous situation
  - Notify emergency rescuers
  - Going in yourself can put you and the other person in more danger.

- Learning objectives and teaching/persuasion points, and user goals in the comprehension and deployment of these teaching/persuasion points
- Key Features
  - Play as lifeguard and identify risks.
  - Switch to person at risk and steer them out of danger.
  - Mini games
    - Rip currents
    - Timing to go under waves
    - Swimming out of the way of jetties
    - Avoiding beach debris
- The user interface and environment
  - Identifying risk
    - Player has an overview of the whole beach and ocean
    - Player has to choose which people are at risk from certain dangers
    - Once the player has successfully identified a person at risk they switch perspectives
  - Practicing getting out of danger
    - Player's perspective changes to person in risk
    - They have to decide the right strategy to get out of the dangerous situation they are in.
      - Rip Current

- The player gets to decide which direction they want to swim in to get out of the rip current
- A fatigue bar shows the player how tired their character is getting from swimming with/against the current



A diagram for what to do when caught in a rip current

(<http://blogs.oregonstate.edu/breakingwaves/files/2013/02/rip-current.jpg>)

- Timing Waves

- Timer for how long an average person can tread water
- The player has to choose the right time to dive underneath the wave to minimize fatigue
- Jetties
  - The player is getting swept by the current towards a jettie
  - The player has to swim around the jettie to avoid injury to themselves



Picture of a jettie obstructing waves.  
(<http://tinyurl.com/l6p8h63>)

- Debris
  - The player has to navigate the around the beach trying to avoid dangers such as washed up glass, jellyfish, and sea urchins



Picture of sea urchins washed up on the shore of a beach.  
(<http://tinyurl.com/nuhv9bt>)

- Gameflow/Narrative
  - A calm beach is shown with everybody enjoying the day
  - The lifeguard instructor presents information and facts about the ocean and its dangers
  - The instructor spots a beach goer in a dangerous situation
  - The instructor shows the player how to identify dangers and demonstrates how to assist the beach goer
  - The instructor turns over the control of the beach to the player
  - The player looks over the beach identifying dangerous situations

- Once the player has successfully spotted a beach goer in peril they have to run down the beach avoiding debris (Debris mini game)
- As the player is swimming to the victim they have to time diving under the waves (Timing Waves mini game)
- Just as the lifeguard gets in proximity of the victim they switch perspectives with them
- Now the player is playing as the victim and must swim themselves out of the danger they are in (Rip Current and Jetties mini game)
- Throughout the day different dangers are presented to the player
- The player is given a score based how long it took them to get to the victim
- If the player is not able to save the victim another lifeguard steps in to show the player how to perform the action better in the future. The player's score is also affected negatively by their inability to save the victim.
- Helpful Learning Mechanisms
  - Scaffolding
    - In early levels the game will show the player more signs of danger such as arrows depicting a rip current occurring.
    - As the player progresses these mechanisms will be removed allowing the player to identify the hazards without the aid of the game.
  - Coaching
    - Throughout the game the instructor provides the player with information and tips on succeeding in identifying and avoiding dangers.



- Evaluation and Assessment
  - Pre and Post test build into the game
  - The male to female ration would be 4:1 considering that 80% of drowning victims are males.
  - A statistically significant improvement between the pre and post test would suggest that the game has presented the information to the player in a way that they actually absorbed it.
  - The score given to the player during the game is not supposed to be used to judge how well they absorbed the information presented. It is only supposed to be used as an encouragement tool to keep the player interested in continuing the game.
- Conclusion
  - We think that by introducing information early on in the game and having the player utilize the information throughout their play session will cement their knowledge about avoiding danger on the beach.

"Unintentional Drowning: Get the Facts." *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, 24 Oct. 2014. Web. 04 Feb. 2015.  
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"United States Lifesaving Association Rip Current Survival Guide." *United States Lifeguard Association*. N.p., n.d. Web. 08 Feb. 2015.  
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