

Evaluation of the Game Exermon

- a Strength Exergame Inspired by Pokémon Go

Written by Alf Inge Wang, Kristoffer Hagen, Torbjørn
Høyvik and Gaute Meek Olsen



Why exergames

- Physical activity should be included at least 3 days of the week as part of 60 or more minutes of daily physical activity
- Create a motivating, enjoyable and engaging game that can provide health benefits from strength training

Inspiration

- Pokémon Go can be considered to be the most successful commercial exergame to promote physical activity with more than 650 million downloads worldwide
- Promote physical strength training
- Young adults as target audience

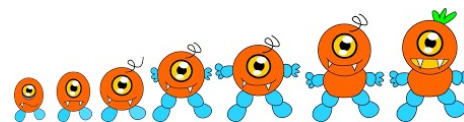


Differences from existing games

- Designed as a real game containing real gameplay
- Wii Fit, Wii balance board, Kinect, PlayStation Move
- Motor skill learning
- Other related work

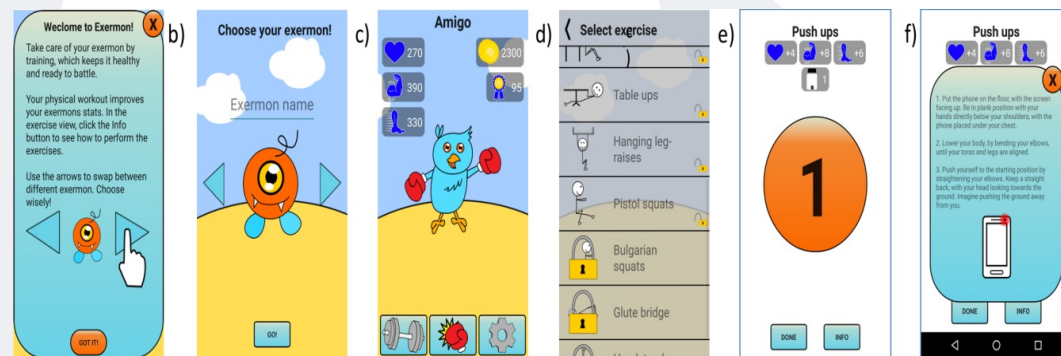
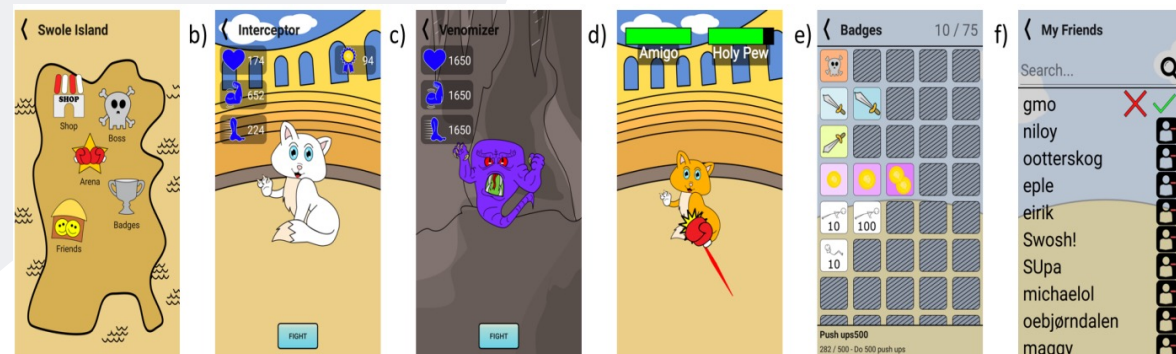
Theoretical framework

- Focus areas: Challenge, fantasy and curiosity
- The gameflow framework
- Dual flow



Gameplay

- User exercises -> exermon grows
- Connect with friends to fight and compare
- Training, planning and fighting
- Tracks smart phone's proximity and accelerometer sensors



Research Questions and Research Approach

- “The purpose of this study was to evaluate the effect of using a game as a motivation for strength training from the point of view of an adult in the context of everyday life.”
- Five research questions:
 - RQ1 What is the physical effect from playing the Exermon game?
 - RQ2 What is the motivation effect of playing the Exermon game?
 - RQ3 What is the enjoyment effect of playing the Exermon game?
 - RQ4 What is the engagement effect of playing the Exermon game?
 - RQ5 How does the control, progression and social interaction affect the Exermon game experience?

Results

- 24 subjects tested the game over two weeks
- Survey, observations, interviews and logs from the game server
- The game gave a positive physical effect but not on all test-subjects
- The game has a motivational effect on the players, but there is room for improvement for making the game even more motivational
- The game was found to be enjoyable, but more content should be provided to keep the game enjoyable over time
- Less aware of their surroundings

Discussion

Technical challenges

The problem of cheating

Threats to validity of the result

Conclusion

- Great potential for exergames with strength training
- Require players to be interested in doing strength exercises

