

# Polar Rampage

A polar bear on the verge of drowning, desperately reaching out for food. Will he succeed in his epic quest for survival?

Guy Ackermans s415148

Tim Kutscha s4099818

Chrisovalandis Boukouras s4216857

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## 1 Introduction

This report reviews the prototype of the app "PolarPalooza", as developed by Maffaroon. PolarPalooza is a simple 2-dimensional game, the setting consists of a polar bear on a small strip of ice, surrounded by water. Fish jump up from the water and the polar bear needs to eat them, while avoiding falling into the water. The bear can slide over the ice to the left and to the right, as well as jump in order to reach the fish. The game ends when the time limit has passed or the bear has fallen into the water too often. The player's highscore will be saved and he can see the top 10 best scores ever achieved.

## 2 Test Targets

We use the "5Es" as described by Whitney Quesenberry (included in the lecture slides of this course) to assess the usability of the "PolarPalooza" app. The 5 criteria set by Whitney Quesenberry are as follows:

- **Effective** How completely and accurately the work or experience is completed or goals reached.
- **Efficient** How quickly this work can be completed.
- **Engaging** How well the interface draws the user into the interaction and how pleasant and satisfying it is to use.
- **Error tolerant** How well the product prevents errors and can help the user recover from mistakes that do occur.

- **Easy to learn** How well the product supports both the initial orientation and continued learning throughout the complete lifetime of use.

## 3 Applied Methods

We make use of the "Think-out-loud" method as well as questionnaires. The following persons agreed to test "PolarPalooza":

### 3.1 Personas

- **Sander de Kool** is a 21 year student attending Radboud Universiteit Nijmegen. He is interested in programming so he studies computer science. He likes to develop android apps in his free time. PC gaming is also one of his hobbies. He is an enthusiastic player of games such as "World of Warcraft" and "Call of Duty". He is online whenever he can. Not only on his pc, but also on other devices such as his laptop and his cell phone. He is excited about being one of the first to test "PolarPalooza".
- **Jesper van den Bosch** is a 35 year old manager at the RaboBank. Jesper needs to travel a lot for his work. He has a wife and a kid but he nevertheless spends nearly three months each year in hotel rooms. He likes to play app games On his cell phone (or on his tablet) in order to relax and get a bit of closure from his stressful job. Games such as "Flappy Bird" or "Running Jim" entertain him on his long train rides. He is eager to test "PolarPalooza" because he is getting tired of failing to break a single highscore on "Flappy Bird".
- **Emilie Sloot** is a 27 year old woman. She is happily married to her husband who is a caring father and attorney at law. Her two children Sarah(8 years old) and Justin(6 years old) attend elementary school. She is a certified paralegal but she does not work anymore in order to have enough time for her children. She often plays with her children, and she plays games from the GooglePlayStore in her spare time. She is always looking for more gaming apps to play.

### 3.2 Scenarios

- **Sander** is sitting in front of his computer which is updating "World of Warcraft" to the latest version. He has to wait 34 minutes until the update is complete and so he decides to try "PolarPalooza" while he is waiting.
- **Jesper** is sitting in a train and has two hours until he arrives at his destination. He will try "PolarPalooza" for the first time and see if it can entertain him on his trip.
- **Emilie** just drove her kids to school and arrives at home. She heard of "PolarPalooza" and likes to try it out before her kids get home, to see if she can play it with them.

### 3.3 Questionnaires

We use a modified version of the example questionnaire as given in the lecture slides of this course. We report the average opinion of our 3 testsubjects, on a scale from 1 to 5 where a 1 counts as fully disagree and 5 as fully agree.

1. I think that I would play the game frequently.
2. I find this game unnecessarily complex.
3. I think the game is easy to play.
4. I think I need more explanation to play this game.
5. I think that all functions were well integrated.
6. I thought there was too much inconsistency in this game.
7. I would imagine that most people would learn to use this game very quickly.
8. I found the game very cumbersome to use.
9. I felt very confident using the game.
10. I needed to learn a lot of things before I could get going with this game.

## 4 Results

### 4.1 Thoughts

These are the results of our "Think-out-loud" testing:

#### 4.1.1 Sander

- The contrast of the main menu is too low, I can't make out the buttons and text very well.
- Instructions appear simple.
- The game is very easy
- The bear doesn't always jump when I want him to, very inconsistent jump controls.
- There is an option to adjust music volume but there is no music at all.
- Highscores function looks okay.
- Gyroscopic controls function well and make the game a bit more challenging, but it still does not fix the jumping problem.
- This game is way too easy and minimalistic for a hardcore gamer like me

### 4.1.2 Jesper

- Annoying sounds, I wish I could turn them off ingame.
- The rounds aren't long enough by far.
- This game needs more variation because it gets boring after a few hours.
- There are some bugs regarding jumping, but attempting to jump is worth the risk of failing.
- The gyro function is worthless to me, this train is shaking too much!
- It is an enjoyable game, despite its flaws.

### 4.1.3 Emilie

- Looks pretty good, i like the ice bear.
- Wow, that goes fast. Almost impossible to get all fishes. That stresses me.
- There is no music, unfortunately, it would have been nice.
- Why doesn't he jump?!
- Trying to beat the highscore is really addicting!

These are the results of our questionnaires. The first number is the number of the question (see above).

1. Average score: 3
2. Average score: 2
3. Average score: 3
4. Average score: 1
5. Average score: 4
6. Average score: 4
7. Average score: 2
8. Average score: 3
9. Average score: 3
10. Average score: 2

## 5 Conclusion

Our conclusion with regards to the 5Es:

- **Effective** The goal of this game is to entertain. It seems like Emilie had a blast but Sander was used to a different sort of games. Jesper thinks this game is great to play during his trips, but he will probably not play it at home.
- **Efficient** There is no real buildup in this game, so it is entertaining right from the beginning.
- **Engaging** The game graphics are very attractive to the eye of the user. It is a consistent design. The center of attention forms the main character, the bear. He is very attractive to young people and grown ups, though not very lively in his facial expressions.
- **Error Tolerant** The game works well overall, but the problems with jumping can be very frustrating.
- **Easy To Learn** The controls of the game are very simple so people of all ages can play this game right from the start. Jumping though is harder to learn, because it is so inconsistent. The user gets the feeling that it works only occasionally and not at will.

Our conclusion is that this game is quite entertaining to a broad range of people, though not for hardcore gamers. The inconsistency of the jumping controls is a major problem and needs to be fixed. It is a fun game to play if you have a few minutes to waste.