

VIA University
College

IT-SEP4C-S18 – SERIOUS GAME

PROJECT DESCRIPTION

THE FRANGOVERS

KAROLINA BELIHAROVA (253810)

MAREK LÖWY (253652)

SUPERVISORS

KASPER KNOP RASMUSSEN

JAKOB KNOP RASMUSSEN



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BACKGROUND DESCRIPTION

A game, as a form of recreation, which can be used for educational purposes, or spare time enrichment, has been known since around 2600 BC (Royal Game of Ur, Iraq). The games generally spread among people has developed to be more complicated from that time on.

Rules, goals challenges and player interactions are some of the examples that became parts of games. Playing against the opponent was more entertaining because it was challenging, required higher skills, and the joy from winning was more satisfying.

To achieve the meaningful game experience, games needed to be defined by rules, to be understood clearly by the players. Wining conditions were needed to determine winner from loser, or to determine draw.

Some games were pushed so far, that certain level of skill and strategy was required to play for each participant. Fulfilling those rules ensures best game experience.

French sociologist Roger Caillois (Caillois, 1953) defined game as an activity that needs to have the following characteristics: fun, separate, uncertainty, non-productive, governed and fictitious.

The first video games can be dated to the early 50s, when the technology became advanced enough for scientists to design simple games and simulations using electronic circuits. Until that point, the computers were mainly used to solve mathematical problems. The discovery of CRT lead to tremendous rise of game development; however, it was not until the 70s and 80s that the games reached the mainstream popularity with arrival of arcade games and gaming consoles.

According to *The Conversation*, video games have great educational potential in addition to their entertainment value. Games designed for specific problem, or to teach a specific skill have been very successful, since they are motivating, engaging, and provide rewards and chance to improve.

Gameplay involves repeated actions that strengthen the brain cell connections underlying memory and learning. Games as Tetris or Othello activate brain areas which control decision making. Some games require real-time action and activate areas, which control sensory movement.

DEFINITION OF PURPOSE

The purpose of this project is to develop an application that will help people with training their short-term memory. It should do this in a form that is both entertaining and appealing to young people.

PROBLEM STATEMENT

We want young people to have fun in their free time while still getting some benefits in terms of short-term memory improvement.

Today, young people see memory training exercises as boring and unattractive. We need to find a way to change this. We need to find something that will help them train their short-term memory in a fun way. We need to make this solution available for them at almost any time, whether they are home, or bored outside. We need to make this solution appealing to them, while keeping it effective.

DELIMITATION

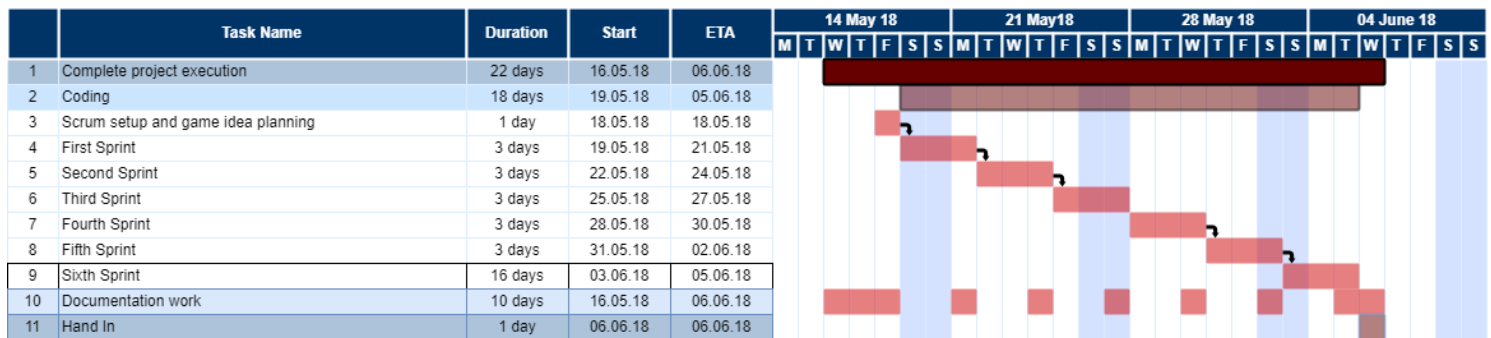
This solution can be used by only one person at the time. The solution will be made only on computer and mobile devices. The solution won't necessarily improve long-term memory.

CHOICE OF MODELS AND METHODS

What Partial problem	Why Why study this problem?	Which Which models/theories are expected to be used to solve the problem?
How to make memory training fun for young	Because making training fun will convince them to train more	We will make a serious game in using Unity 5
How to make something to train short-term memory	Short term-memory can be very useful to young people	We will include several types of puzzles in the game
How can we make the solution available at almost any time	This will give them opportunity to train whenever they feel like it, or if they are bored.	We will make the game available for both computer and mobile devices



TIME SCHEDULE



Risk Assessment

RISKS	DESCRIPTION	L	S	PERSON IN DANGER	CONTROL RECOMMENDATIONS
MOBILE PROBLEMS	SOMETHING CAN'T BE IMPLEMENTED ON MOBILE PLATFORM	3	3	ALL GROUP MEMBERS	ENSURE THAT FUNCTIONALITY THAT IS TO BE IMPLEMENTED IS COMPATIBLE BEFORE IMPLEMENTING
NOT ENOUGH TIME	GAME COULDN'T BE FINISHED ON TIME	2	3	ALL GROUP MEMBERS	DON'T OVERESTIMATE SPEED OF OUR IMPLEMENTATION
NOT OPTIMIZED	GAME IS TOO RESOURCE HEAVY	2	2	ALL GROUP MEMBERS	TRY NOT TO IMPORT OVER COMPLICATED ASSETS
ASSETS	SOME ASSETS NEED COULDN'T BE FOUND	3	2	ALL GROUP MEMBERS	DO INITIAL ASSET RESEARCH BEFORE PROCEEDING TO IMPLEMENTATION



SOURCES OF INFORMATION

Caillois, R. (1953). *Les jeux et les hommes*. Paris: Gallimard. Retrieved from Wikipedia

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