

Research on serious games based on 23plusone.

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Topic or subject of the assignment: developing a serious game based on 23plusone to help their users stay interested in engaging with the learning process of 23plusone in a fun way.

BR-ND people is a company that works at the crossing of corporate strategy, brand marketing, and human resources (BR-ND People, 2021). They help companies set their branding strategy, build their company story and visualisations. 23plusone is a game they developed; it contains 24 emotive drives. It can help individuals and organisations gain insight into emotive dynamics and help people positively change behaviours. BR-ND people want to keep users interested and engaged with the learning journey of 23plusone in a fun way. There is no serious game based on 23plusone yet. Therefore, this research focuses on how a serious game based on 23plusone makes the learning journey more accessible and fun for users. The research questions are determined based on this topic:

Main question: How can a 23plusone based digital serious game improve the learning experience to be more accessible and fun?

Central question 1: What can improve the learning process?

Sub-question a: What are the information /skills users need to learn?

Sub-question b: What helps users gain the skill, understand and remember the information?

Central question 2: What factors can make this serious game fun?

Sub-question c: What are users expectations for "fun"?

Sub-question d: What feedback from the digital game can make the experience fun?

In the research question, the problem is divided into two parts, how to help users with the learning journey and how to help users with entertainment.

To guide the research, the design council's framework for innovation is adapted to the research methodology. A literature review is done to find theories that can support the design. Here, the effectiveness of serious games, factors that can influence the learning journey in serious games, factors that can influence games' playfulness, and how to balance the learning journey with playfulness is analysed. The results of the analysis are used to develop a requirements list of the game.

Besides, interviews and surveys are used to help map out the learning journey of 23plusone and analyse what users want to learn about 23plusone and what can be used to help them learn 23plusone. It is found out that after seasonal school, users have problems practising 23plusone, which lead to the loss of interest and engagement. At the same time, the goal of the seasonal school is to help users learn about how to apply 23plusone on an individual level. The end goal of learned how to apply 23plusone on an individual level is to know how to apply 23plusone on others. Therefore, the learning outcome of the game is determined: Help users learn how to apply 23plusone to others.

Based on the requirements and learning outcomes of the game, concepts are developed and prototyped. The game's difficulty level breaks the final goal into smaller goals; interactions and tasks are developed based on that. A reward system is developed to help the game shape users behaviour and give users a feeling of achievement to make the game more playful. The user interface is designed to make the game accessible and controllable. The story and aesthetic of the game is designed to make the game more playful and immersive. The style and theme adapted with BR-ND people's company culture to connect the company and the game closer.

Playtests are done to get feedback from users and develop the game to answer the research questions. The dialogues are redesigned to make the theories more understandable; the user interface is developed

to be more accessible; the audio feedback and game theme is changed to provide a betting gaming experience, and a bonus challenge is added to help users continue to learn about applying 23plus one on an organisation level.

Eventually, to answer the main question of this thesis, the followed process can be followed:

- a. Take a review of literature about serious games to find theories that can help the design.
- b. Mapping out the learning journey of the educational topic.
- c. Analysis users' learning habits, what they want to learn more, and what can help them learn better.
- d. Combine the results, determine the learning outcome of the game.
- e. Determine what theories needed to be in the game in order to achieve the learning outcome.
- f. Design the game mechanics based on the theories list.
- g. Develop the game based on serious game design theories.
- h. Playtest and adapt the game until it achieved the experience for users as designed.

This research has many limitations: the user analysis is mainly done with secondary data, deeper analysis can be done; interviews and surveys can not represent the user group completely; more playtests can be done, and more professional game development engine can be used for prototype to make sure all the functions can be tested.

In the end, more research could be done to see if the outcome of the research and the theories applied in the research can also be applied to other educational topics.