

Case Study

Evolution in the Interface of “Snake” game



Problem:

Investigation of gameplay experience in different generation of phone interface on a simulator.

Roles:

User Experience Researcher, User Interface Researcher.

Time:

12 weeks

Solution:

User evaluation study based on eight key metrics.

Process:

The users played the game for 5 minutes on the following versions of the game in KEmulator which runs old java games of .jar format.

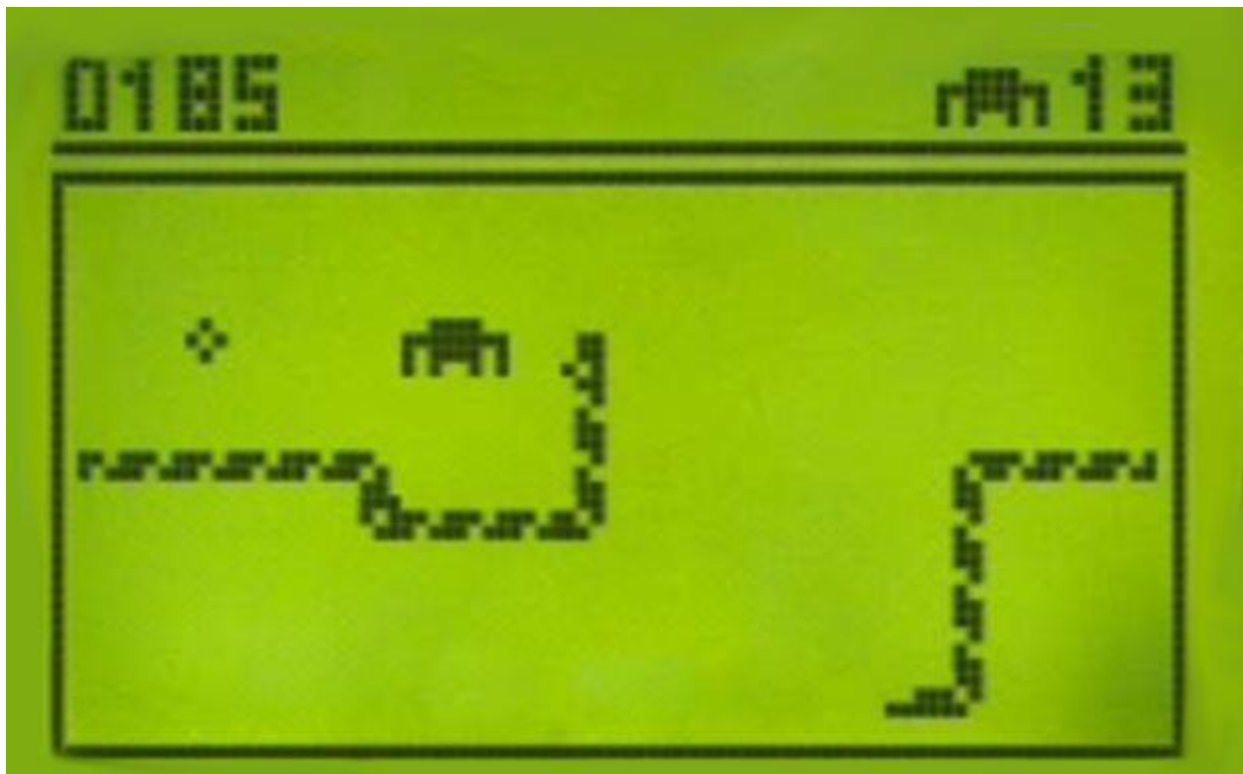
1. Snake - for nokia monochrome phones.
2. Snake EX – for nokia colour phones.
3. Snakes – A 3D version designed for the nokia N-Gage in 2005 [5]

Collection of data on the factors' using questionnaire was possible with the time limiting them from overlong playing and forgetting about it being a test.

1. Color: The color scheme of the game
2. Layout: how the design looks like
3. Simplicity: understanding of the design
4. Input Controls: how are the controls? If they follow the same pattern.
5. Consistency: if the versions are similar and follow any criteria.
6. Texture: texture in terms of the bits and not on what hardware was used.
7. Defaults: default settings of the game.
8. Feedback: if the user was able to understand what was happening in the game.

Activities:

Interview, Survey, and Usability Evaluation.





Evaluation:

Evaluation was based on Likert scale 0-10 where 0 being highly unlikely and 10 being highly likely.

Tools Used:

- Google Surveys
- Comparative Analysis

Requirements gathering and Research

- User Interviews
- Research the emulator for the metrics.

Result:

User Satisfaction or Apdex Score for the snake classic was 0.85 in a range of 0-1, being the highest followed by 0.60 for the color version and lastly snake 3D with a score of just 0.40

Data:

For the snake classic version the average rating for the mentioned

Color	Layout	Simplicity	Input Controls	Consistency	texture	Defaults	feedback
5.75	6.35	9.1	7.95	6.35	5.6	9.1	7.45

For the snake color version the average rating for the mentioned

Color	Layout	Simplicity	Input Controls	Consistency	texture	Defaults	feedback
4.3	4.45	5.4	5.05	5.3	4.75	5.45	5.3

For the snake 3D version the average rating for the mentioned

Color	Layout	Simplicity	Input Controls	Consistency	texture	Defaults	feedback
2.75	2.45	2.45	2.85	2.7	2.25	2.6	2.7

After calculating the average of all the 3 version of the game.

Color	Layout	Simplicity	Input Controls	Consistency	texture	Defaults	feedback
4.266666 667	4.416666 667	5.65	5.283333333	4.783333333	4.2	5.71666666 7	5.15

Note: The max-min values are added to the appendix with rest of the charts

Discussion

After doing the tests, the major finding was that it didn't take much time for the users to collect the desired points in the first two versions of the game but the 3d version takes more time as the game's default speed is low, but all the users loved to play the game as a part of a nostalgic experience.

Further, mobile games have evolved a lot during the ages. From arcade games to current versions of android games of high configurations and richness to it. With this project it was found that despite of enhancements in the games in different versions, all the test users liked the classic one the most because of its simple design, decent colour scheme, following the game is easy, texture, layout, and default settings.

Users enjoyed the interface despite of being not so advanced, new age kind of interface but they suggested it would be fun to play the game in AR or VR modes too.

Only if there existed a technology such small and versatile that the people could use the system with ease in real time.

In future it would be amazing to see if the game is developed more and appreciated using AR or VR or something new, which might prove it even better. An interesting topic to study with a referential game which has all the aspects of being a simple one player game to kill time or boredom.