



# Evaluating South Korean Based Mobile Role Playing Games with Playability Heuristic Evaluation

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## Abstract

This research compared two role-playing games developed by South Korean-based company which is Netmarble Games. These games were selected based on their number of downloads among iOS mobile users. The Heuristic Evaluation method was selected to study this games based on 3 categories which are Mobility, Usability and Gameplay. In conclusion, this study has presented evaluation on these 2 games based on playability heuristic evaluation and have identified key areas to be improved by game designers.

**Keywords:** Role Playing Games; Mobile Games; Heuristic Evaluation; Usability; Game Play.

## 1. Introduction

The South Korean mobile game industry has grown and developed tremendously for the past decade. Mobile games are categorized under creative content industry which recorded an export rate of more than US\$ 5 billion by South Korea in 2014 and became among the most successful contributors to the country economy [1]. Mobile games can be divided into different types of genres such as strategy, sports, role-playing, and puzzle games. Almost two-thirds of smartphone users out of the 50 million of South Korean population play games on their phones. More than 90 % of Korean smartphone users run Android and spend more time on their phones playing games [2]. Recently, South Korean based mobile games are facing strong competition from other Asian countries such as China, especially in MMORPH and role playing games. According to [3], South Korean computer games industry is struggling to compete with fast growing Chinese competitors.

The aims of the present study are divided into three parts, which are:

- To conduct Heuristic Evaluation Playability (HEP) on mobile role-playing games developed by South Korean based production company.
- To identify weaknesses and strengths of these mobile role playing games based on the HEP findings and analysis

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- To provide recommendations in terms of usability on improvements of these games based on the HEP analysis.

HEP is a set of evaluations to apply to heuristics to determine the playability of games, based on an extensive review of the litera-

ture. A heuristic evaluation involves evaluating a product and provides positive and negative opinions about the product [4]. According to a study conducted by [5], they analyzed multiple heuristics to determine how effective they are in providing valid and effective evaluations of video games. Heuristics are a measure of usability. They are most often used for software design. However, heuristics for games have a slightly different purpose from heuristics for software design. In software design, a program should be easy to use and difficult to master, with an enjoyable user interface. Games should also be easy to use and have an enjoyable user interface, but they should be difficult to master. Therefore, the same heuristics cannot be used for software design and for digital games. Instead, new heuristics must be designed to be able to determine the playability of games.

A study conducted by [6] on the popular social media-based game "Farmville," based on several usability heuristics. Six evaluators played the game "Farmville," beginning with making a new account as any new player would have to, and noted whether the game met various requirements on a three-point scale (Yes, No, Other). These requirements were taken from the heuristics of [7-9], as the researchers felt that none of these heuristics alone had all the necessary information, but that combined they formed a total picture of game usability. The evaluators indicated whether "Farmville" met the requirements of the heuristics, thus providing an orderly piece of quantitative data as an evaluation.

This piece of research is novel in this review because it does not attempt to create or edit a new heuristic, or to study whether an existing heuristic is sufficient. The researchers felt that existing heuristics were not complete, but did not back this up with research; instead, they simply combined several pertinent heuristics to create the survey they used as their tool. Instead of evaluating a heuristic, this study used a heuristic to evaluate a game. Thus it indicates the usefulness of the heuristic from a game developer's point of view, as a checklist for developers to use to determine the usability of the game. However, it does not indicate whether the