# **HEKASI CHALLENGE**

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# Chapter I

#### INTRODUCTION

## **Project Context**

Educational games are getting increasingly common to use in education, both in the classroom and in the homes of the learners. At the same time ,the amount of educational games on the market is increasingly tremendously. Many children at this generation are hooked in certain types of games. Some children routinely start the day by spending time in different games. Educational gamesexplicitly designed ith educational purposes, or which have incidental or secondary educational value. All types of games may be used in an educational environment. Educational games are games that are designed to help people to learn about certain subjects, expand concepts, reinforce development, understand an historical event or culture, or assist them in learning a skill as they play. An educational game is a game designed to teach humans about a specific subject and to teach them a skill. As educators, governments, and parents realize the psychological need and benefits of gaming have on learning, this educational tool has become mainstream. Games are interactive play that teach us goals, rules, adaptation, problem solving, interaction, all represented as a story. They satisfy our fundamental need to learn by providing enjoyment, passionate involvement, structure, motivation, ego gratification,



adrenaline, creativity, social interaction and emotion in the game itself while the learning takes place.

In some sense they have a type of addiction to Games, there is fun in answering the challenge-making some or a lot of progress in completing the game. Hekasi Challenge upon the children's general knowledge and recall all what they've learned. Through study and practice, a children's learn about history, economic, culture etc. Doing a Hekasi Challenge is like doing a certain type of brain exercise.

Hekasi Challenge is a type of game. In every case, the children's goal is to answer a particular problem or accomplish a particular challenging task. Education has many goals. There is a huge amount of research practitioner knowledge about teaching and learning. They become better in answering the questions and accomplishing the challenge in time.

From an educational point of view, it is clear that answering the Hekasi challenge helps to maintain and improve their knowledge about information of their ideas. Games provide an excellent environment to explore ideas of thinking. The fact that many games are available of both in a non-computerize form and in a computerized form helps to create this excellent learning environment. Learning games can help students to contextualize and apply lesson content to themselves and real life. A modern education prepares pupils to be productive and responsible



children in a world in which mind/ brain and computer working together also giving knowledge to children who's playing on it.

Some electronic games are merely computerized versions of games that existed long game before computers. The computer is most likely one of the great technological triggers from future change. Computer nowadays have infiltrated every aspect of our society, and now they do much more than simply compute computers can now be an office tool and is now used in businesses, computer games also have been developed prior to the development of computers. With the ever-increasing processing and graphical capabilities of computers and console products, along with an increase in user expectations, game design moved beyond the scope of a single developer to produce a game in a reasonable time.

Computer games conquer the minds of youth today, For us, computer games are fine but once you put all of your time playing these then you might want to think of controlling yourself. As a youth and a student, we think that we should focus on our studies more because our studies would make a great impact on our future. We are not saying that you should not play such computer game. You could play but make sure that you could control yourself, manage your time and keep it in moderate.



Each game intended audience for Grade IV, though older player will enjoy the game. They all contain gorgeous, vivid photographs and graphics are written in a conversational tone suitable to their intended gaming. This game help kids to be familiar with history, cultures, hero etc.

Educational games are getting increasingly common to use in education, both in the classroom and in the homes of the learners. At the same time the amount of educational games on the market is increasing tremendously. The idea is that collecting information about educational games in a single place will make it easier for users.

Educational games are games that are designed to help people to learn about certain subjects, expand concepts, reinforce development, understand an historical event or culture, or assist them in learning a skill as they play.

## **Purpose and Description**

The main purpose of this study is to develop a Hekasi Challenge game to present many challenges to a child's ability to concentrate and process information and to gain knowledge.

School Administrators. This Hekasi Challenge game can help the learners to have an automatic locomotors response to the question and





to enhance also their ability in playing the aforementioned educational game.

Teachers and Future Teachers. The Hekasi Challenge Game is a form of educational innovation that will make teaching-learning process enjoyable and meaningful. This will aid the pupils to explore and experience visual brainstorming.

Parents. This form of activity motivates their children to widen the arithmetic skills in answering the questions. It is also a form of recreational activity of the children. Directing them in to such kind of activity can get away from unethical and immoral actuations.

Researchers and Future Researchers. To inspire them to conduct similar research like this to come up with other or different educational games that will help the learners to equip with the necessary skills.

## Statement Of Objectives

This study aimed to develop a Hekasi Challenge Game for children in Grade IV for Santa Maria West Central School.

Specifically it sought to achieve the following:

- 1. To design and develop an educational game.
- 2. To implement Hekasi Challenge.
- 3. To test the usability of the system.



## Scope and Limitation

The study focused on the developed Hekasi Challenge Game intended for Grade IV pupils of Santa Maria West Central School. The proponents designed and developed the Hekasi challenge to be an educational game, to implement the developed game, to observe on how the children answer the questions, and to test the usability of the system. The proponents used Renpy as programming language and used the iterative waterfall model in developing the game. Windows and Android Phones can run the said type of educational game. The developed game is composed of four chapters, chapter I has 10 questions, chapter II composed of 15 questions, chapter III has 20 questions, and chapter IV has 30 questions players can move only to the next level if they answer the question correct. The question were taken for the Hekasi textbook for Grade IV. The game compose of three categories.

The limitation of the developed game is can play without the use of data connection or wifi. The idea of using games to engage pupils in the process of active learning is not new.



## Chapter II

#### **REVIEW OF LITERATURE**

In this portion, presents the review of several literatures that would be beneficial to the study summarized from previous writings, showing detailed facts asserted by few people or pioneer in the field of computer. On this element of the study some reviews of the author's passage in order to help the researchers to find ways in contact with the problem, which has made to generate ideas on how to solve the identified problem and to find solution for such problem exists in the project.

Computer game is a computer-controlled game where players interact with objects displayed on a screen for the sake of entertainment is essentially the same form of entertainment, but refers not only to games played on a personal computer, but also to games run by a console or arcade machine. The term "computer game" also includes games which display only text or which use other methods, such as sound or vibration, as their primary feedback device, or a controller (console games).

According to Michael Poh(2011),PC gaming has come a long way since the early days of Pong and Pac-man. We can now play affordable games of high calibre with 3D graphics and awesome interactivity in the comfort of our home, taking for granted the little and subtle



improvements made to each and every consoles before becoming what they are today. In a way, the aggressive competition between companies of pc game consoles had churned out the superior features of pc gaming to bring to us the excellent quality we see today.

HEKASI stands for heograpya, kasaysayan, and sibika is the standard makabayan basic educational curriculum in the Philippines. Hekasi, the Department of education social studies curriculum was revealed as makabayan and clustered with physical education, music, arts and livelihood lessons. As cited from theask.com, February 4, 2016.

**Ren'Py** is a free and cross platform engine for digital storytelling. It makes it easy to combine words, images, and sounds to create visual novels and life simulation games. As cited from Renpy.org February 4, 2016.

Visual novels are computer-based stories that are told through words, images, sounds, and music. Many visual novels also present the player with menu choices that allow the player to control how the story is told.

Ren'Py's script language makes it easy to write visual novels, and other writing-heavy games. It's easy to learn, and scales well to the largest projects. Even without customization, Ren'Py provides the features players have come to expect from their visual novels.



Life Simulation games, such as management and dating sims, are more interactive games that mix story with gameplay. Ren'Py's screen language allows one to create complex interfaces, while its support for the Python scripting language makes allows for complex game logic, if that's what your project requires. As cited from the Renpy.org, February 4, 2016.

Android is the world's most popular operating system for mobile devices and tablets. It is an open source operating system, created by Google, and available to all kinds of developers with various expertise levels, ranging from rookie to professional.

From a developer's perspective, Android is a Linux-based operating system for smartphones and tablets. It includes a touch screen user interface, widgets, camera, network data monitoring and all the other features that enable a cell phone to be called a smartphone. Android is a platform that supports various applications, available through the Android Play Store. The Android platform also allows end users to develop, install and use their own applications on top of the Android framework. The Android framework is licensed under the Apache License, with Android application developers holding the right to distribute their applications under their customized license.



A game is structured form of play, usually undertaken for enjoyment and sometimes used as an educational tool. Games are distinct from work, which is usually carried out for remuneration, and from art, which is more often an expression of aesthetic or ideological elements. Key components of games are goals, rules, challenge, and interaction. Games generally involve mental or physical stimulation, and often both. Many games help develop practical skills, serve as a form of exercise, or otherwise perform an educational, situational, or psychological role.

4 Pics 1 Word is a game that gives you the help you need when playing 4 Pics 1 Word. Simply enter your letters and select the length of the word you are looking for. Word Finder scans the dictionary to deliver a complete alphabetical list of possible answers for the letters you entered. You still have to pick the correct word that matches your pictures so it's not really a cheat, but more of a help. As cited from theworldfinder.yourdictionary.com.

Bookworm is a word-forming computer puzzle game by PopCap Games. From a grid of available letters, players connect letters to form words. As words are formed, they are removed from the grid and the remaining letters collapse to fill the available space. As in Scrabble, players earn more points by creating longer words or words which use less common letters and earn less for smaller words.



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#### References

#### Online Source

Renpy. Available at

www.cprogramming.com/android/android\_getting\_started.html/)
Last Accessed January 5,2016

Iterative Waterfall Model. Available at

www.Iterative\_and\_incremental\_development/Last accessed January 10,2016

Game. Available at

http://www.bing.com/search?q=what+is+game&form Last Accessed January 12, 2016

Android.Available at

(http://www.cprogramming.com/android/android\_getting\_started. html Last Accessed January 20,,2016

Hekasi.Available at

http://www.ask.com/word-view/hekasi-stand-efaa8c6a2703e118 Last accessed February 4, 2016

Use Case Diagram

Gemino, A., Parker, D.(2009) Last accessed February 16,2016

Hekasi

http://www.ask.com/word-view/hekasi-stand-efaa8c6a2703e118/ Araling Panlipunan IV Last accessed February 27, 2016

#### Game

4 pic in 1 word

http://wordfinder.yourdictionary.com/4pics/ Last accessed March 10,2016

Bookworm

(https://en.m.bookworm.org/dictionary/Bookworm\_(video\_game/) Last accessed March 15, 2016