

**EMPOWERING KODU GAME
AS A NUMERACY LEARNING MEDIA
FOR KINDERGARTEN**



FINAL PROJECT REPORT

Submitted as One of Fulfillment of the Requirement
for Getting Bachelor Degree in Department of Informatics
Universitas Muhammadiyah Surakarta

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2013**

APPROVAL

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**“EMPOWERING KODU GAME
AS A NUMERACY LEARNING MEDIA
FOR KINDERGARTEN”**

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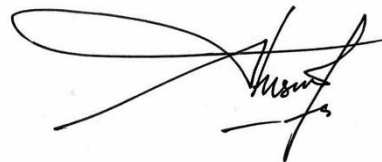
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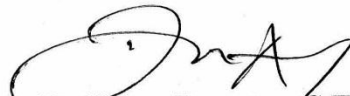
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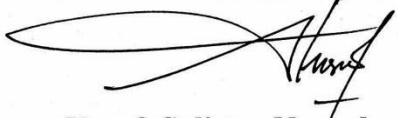
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CONTRIBUTION LIST

Herewith the author state that this final project is my original work. This final project is never found in the other university that has same statement and opinion, except: some parts which are taken from references and suggestions as the guidance for the technical writing of the research study.

Here, the author describe the draft contribution in this final project as follows:

1. The author creates this game by me with the tutorial direction from internet.
2. The application program that used in creating this game is Kodu Game Lab.
3. The author used laptop with specification; Processor Intel Core i3-M 3502.27 GHz, RAM 2 GB, and VGA ATI Radeon HD 4350 512 MB.

This is my state of contribution list that the author wrote honestly. The author optimally conducted my own research. The author will be responsible with my final project report.

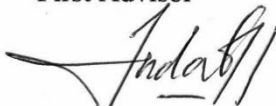
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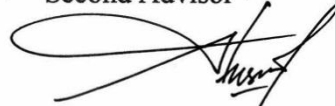
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MOTTO

Do your own thinking independently. Be the chess player, not the chess piece

(Anonim)

You may fall so many times, but always stand up!

(Galuh Ayu A.)

Allah will not change the good condition of a people as long as they do not
change their state of goodness themselves.

(QS. Ar Ra'd, ayat 11)

Live simply, Love generously, Care deeply, Speak kindly

(Septiawan Bagus P.)

DEDICATION

As my thankful, the author dedicated this final project to:

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11. TK Islam Makarima Kartasura as testing place of the game.
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The author

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ABSTRACT

In a process of learning, arithmetic or psychology evaluation, the kindergarten grade need some pleasant thing. One of the media that can be used is a game. Game based on Indonesian-English dictionary means "*permainan*". The research purposed to create a game that can be used to arithmetic measurement. The problem that discussed in this research is how to create and design a game that has element of educating, attracting and easy to play and then be able to be the numeracy media for kindergarten. This research has been done for create a game which there are materials that can be used to assist the children in learning how to do the numeracy with some interesting background arena.

The method used in this game is SDLC (System Development Life Cycles) method. This method describe the life cycles of system development in creating and designing game. The life cycles are; the step of requirement definition, the analyzing of requirement, the step of planning, the step of building system, testing the system and application treatment. Creating this game used the program .Net Framework 4.5, XNA Framework 4.0 and Kodu Game Lab v1.3.5.0.

The result of this creating is the application of kodu game as a numeracy learning media for Kindergarten that consists of the material about children's numeracy suitable with the children's curriculum of Kindergarten in grade B. This game consists of four levels with the different background arena (race, shoot and adventure). Each child needs a different time to complete each level of the game because differences of the ability and backgrounds. When it fails at a certain level then jump to the next level. Based on the testing result, 80% respondent of teacher said that the game helped the children learning numeracy, 80% respondent of teacher and 72% respondent of children said that this game appearance was attracting and 70% respondent said that the element was easy to play. So, the purpose of this creating game that has element of educating, attracting and easy to play and then be able to be the numeracy media for kindergarten has been reached.

Key words: *game, kodu, numeracy, kindergarten*