Multiplatform Visual Novel for Culture Education in a Part of Using ICT for Developing a Lifelong Learning

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ABSTRACT

Over the past decade, ICT (Information Communication Technology) have enabled changes in the way people live, work, interact and acquire knowledge. In Indonesia, the progress of using ICT for education and training has growing rapidly, it called Elearning. However, until this time, they still have limitations in a term of system, platform, and usage. E-learning system that we are using until now, one of these, they are usually only available in web-based system take a small part of supporting the whole basic education such as Science and IT only. Teaching social and culture is very important especially when the students still at elementary school. There is a good point for developing software that could teach these students about Indonesia's social and culture that can be accessed whenever and wherever they are available. Therefore we create the application in a form of visual novel that can be used in multiple platforms. Here, we will present the Visual Novel that used for moral education, there will be a story about honesty, be grateful, helping each other etc.

Keywords: ict, lifelong learning, visual novel

1.INTRODUCTION

Over the past decade, ICT (Information Communication Technology) have enabled changes in the way people live, work, interact and acquire knowledge. Successful education and training in our knowledge society depend increasingly on the confident, competent and innovative use of ICT [1].

In Indonesia, the progress of using ICT for education and training has growing rapidly, it called E-learning. By the time, E-learning has becoming progressively sophisticated, it has positive effect for many of the users, for the example, the teacher and their students to developing more efficient and flexible system for teaching and learning activities. However, until this time, they still have limitations in a term of system, platform, and usage.

There are some limitations of the E-learning system that we are using until now, one of these, they are usually only available in web-based system. The other limitation is the E-learning only take a small part of supporting the whole basic education, for many times, it was only use for teaching and learning about IT and Science. There are many parts of a basic education taught at school that practically still take a minor part in the E-learning system, such as social and culture which required since at initial education level and they are also the part of basic and continuing education. In fact, Lifelong Learning, its definition covers the whole education area: initial education, basic continuing education and university continuing education.

Teaching social and culture is very important especially when the students still at elementary school. In Indonesia, these students already familiar with the *gadgets* such as android phone or laptop, especially in a major city like Jakarta and Surabaya. There is a good point for developing a software that could teach these students about Indonesia's social and culture that can be accessed whenever and wherever they are available, the application that worked in a multiple platform, with the graphics that could interest the students so they will not easily get bored, which teaches social and culture.

2. INFORMATION TECHNOLOGY AND LIFELONG LEARNING

The Lifelong Learning concept is preparing a new type of highly qualified personnel, adopting the technological innovations, achieving a competitive and growing economy and for molding of personality, capable to participate in the socio-economic process actively.

Education material become harder every years, and their scope also become boarder. These revealing the problem that ineffectiveness of a traditional education. We need the innovative steps utilizing today's technology. Information and computer technology has become an important stimulus for Long life learning development and improvement in the quality of education [2].

3.WHAT IS VISUAL NOVEL?

A Visual Novel is an interactive game introduced in Japan in the early 1990s, which consist predominantly of narration and have very few interactive elements, and adventure games[3].

Most visual novels have multiple storylines and more than one ending; the mechanic in these cases typically consists of intermittent multiple-choice decision points, where the player selects a direction in which to take the game. This style of gameplay is similar to story-driven interactive fiction, or the shorter and less detailed real-life gamebook books[4].

4. VISUAL NOVEL FOR EDUCATION

Here, we will present the Visual Novel that used for moral education, there will be a story about honesty, be grateful, helping each other etc. Students

will be choosing one of the multiple choice available at the middle of the game, then the gameplay will determine the ending or the route of the story.



Figure 1 : Multiple choice that appear in the middle of the game

5.MAKING THE VISUAL NOVEL

The first step is the storyboard, a graphic organizer in the form of illustrations or images displayed in sequence for the purpose of pre-visualizing a motion picture, animation, motion graphic or interactive media sequence.



Figure 2 : The Storyboard

The second step, by using the TyranoBuilder, put the parts from the story board, e.g : background, character, sound effect like a puzzle until it ready to export to multiplatform application. TyranoBuilder is a complete visual interface that builds on TyranoScripts functionality, making producing multiplatform visual novels. TyranoScripts is a scripting only multi-platform visual novel engine, developed by STRIKEWORKS[5].

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Figure 3 : The process of making a visual novel from the storyboards

The third step, exporting to all platform you need, TyranoBuilder capable exporting to a Windows, Mac, Iphone, Android and Web, and they are ready to published and used by students.



Figure 4 (left) : web-based application. Figure 5 (right) : windows-based application



Figure 6 : mobile (android) – based application

6.CONCLUSION

The visual novel with basic moral and culture education story is one of the alternative solution for developing Lifelong Learning in ICT aspect because it could be published in many type of platform to overrun the limitation of the E-learning in Indonesia that many still using the web-based system and the perception that E-learning only used for IT and Science purpose only.

REFERENCES

- Van Den Brande, Lieve. (2009). Introduction: Creativity and Innovation in learning through ICT. Retrived from: *https://www.openeducationeuropa.eu/sites/default/files* /old/6 1245062399.pdf
- Dinevski, Dejan., & Kokol, Peter (2004). ICT and Lifelong Learning. Retrieved from: http://www.eurodl.org/materials/contrib/2004/Dinevski.html
- Cavallaro, Dani (2010). Anime and the visual novel: narrative structure, design and play at the crossroads of animation and computer games. McFarland & Company. p. 8. *ISBN 0-7864-4427-4*.
- Chris Klug; Josiah Lebowitz (March 2011). Interactive Storytelling for Video Games: A Player-Centered Approach to Creating Memorable Characters and Stories. Burlington, MA: Focal Press. pp. 194–7. *ISBN 0-240-81717-6*.

About STRIKEWORKS. TyranoBuilder. http://tyranobuilder.com/about/