



Available online at www.sciencedirect.com



Procedia Computer Science 116 (2017) 214-221



www.elsevier.com/locate/procedia

## 2nd International Conference on Computer Science and Computational Intelligence 2017, ICCSCI 2017, 13-14 October 2017, Bali, Indonesia

## Text-Based Games as Potential Media for Improving Reading

### Behaviour in Indonesia

Ida Bagus Kerthyayana Manuaba<sup>a1</sup>

<sup>a</sup>Computer Science Program, Faculty of Computing and Media, Bina Nusantara University, Jakarta, Indonesia

#### Abstract

Reading behaviour is an important factor in building a society that is ready to face the global competition era. Reading behaviour has become important since it helps people to develop their mind; expand creativity and imagination; and discover new things. However, the average reading behaviour of Indonesians, especially for the young generation, is still low. It is evidenced by most of the youth nowadays prefer using their smartphones rather than reading books. With the available technology of smartphones and tablets, it could become one of the many potential ways in addressing the lack of their reading behaviours f. The utilization of a text-based game could encourage and motivate people to be involved in more reading activities. This paper describes a study to develop and enhance a text-based game that has a potential feature to motivate the reading behaviour of youths. The outcome of this study is to evaluate the possibility of text-based games as an alternative method in encouraging the young generation to improve their reading habits and behaviours.

© 2017 The Authors. Published by Elsevier B.V.

Peer-review under responsibility of the scientific committee of the 2nd International Conference on Computer Science and Computational Intelligence 2017.

Keywords: Reading Behaviour, Text-based Game, Interactive Fiction

#### 1. Introduction

Indonesia was categorized as a nation with people that have low average reading behaviour with a maximum score of 7, the average of people reading score in Indonesia was as low as  $3.2^{-1}$ . The lack of reading interest among

1877-0509 $\ensuremath{\mathbb{C}}$  2017 The Authors. Published by Elsevier B.V.

Peer-review under responsibility of the scientific committee of the 2nd International Conference on Computer Science and Computational Intelligence 2017. 10.1016/j.procs.2017.10.041

<sup>&</sup>lt;sup>1</sup> Corresponding author. Tel.: +62-21-5345830; fax: +62-21-5300244. *E-mail address: imanuaba@binus.edu* 

Indonesians was partially because they are still confined to the oral tradition <sup>2</sup>. In addition, Indonesia education system generally does not focus on developing reading behaviour for their students, and in most of the Indonesian family environments, parents also do not inculcate reading behaviour to their children, especially in rural area.

Many studies<sup>3,4</sup> mentioned that there are several limitations related to the low level of reading behaviour in Indonesia. They are: (1) the low availability of reading infrastructure; (2) the scarce access to high-quality libraries and books; (3) great disparity in the quality of education between rural and urban areas; (4) minimum support from parents and/or teacher in building reading behaviour for their children; and (5) lack of enthusiasm in reading.

Indonesia is currently facing upcoming open market. This would mean that Indonesian workforce should compete among their own people and other people from the other countries. Hence, it is important for the Indonesian youth to be knowledgeable and competitive. One of the methods in preparing them to face this condition is through training and learning activities. Improving reading behaviour is necessary to be done as part of their training and learning process.

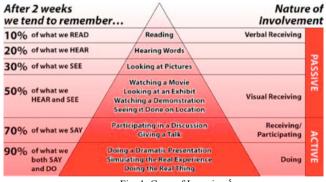


Fig. 1. Cone of Learning 5

Based on Fig. 1 above, learning behaviour can be divided into two types, passive learning and active learning. In Indonesia, most people have been using passive learning behaviour in both formal and informal education setting. Active learning encourages people to do more learning activities that could make the learner to remember up to 90% of their learning. Hence, when the process of behavioural change from passive to active learning, especially those related to reading activity would achieve a better result when it is combined with other engaging activities.

Today, games have been utilized in many areas. From education area<sup>6</sup> to health promotion <sup>7</sup>, from research activities<sup>8</sup> to technology industries<sup>9</sup>. Using games are one of many solutions that can be used to encourage people to do activities and in the same time also conducting new learning experiences. One type of game that has the potential to be explored and utilized more as a learning media is a text-based game.

A text-based game is a type of game that primarily uses writing and text characters to engage players with a minimal or no graphic content. Text-based games could be a potential way to encourage people to be engaged in reading activities while playing the game. This type of game also has an ability to be combined with current smarttechnologies.

With the advancement of current technology, such as smart phones and tablets, it could be more attractive to be used by Indonesian people today. The rise of smartphones and tablets ownership among youths in Indonesia means that most of them are connected to the Internet most of the time. Indonesia has nearly 20 million active Twitter users and is Facebook's fourth most active country <sup>10</sup>.

The multi-functionality of smart devices, include smart phones; camera; MP3 player and many more, creates a possibility to provide more interesting tool compared to a physical paper book. This is exacerbated by Indonesian culture being very oral-oriented <sup>1</sup>.

This paper will describe history and the development of text-based game follow by the development of the proposed text-based game that aims to motivate the reading behaviour of youths. The development process also includes the collection and elicitation of materials, the designing and the developing stage for the proposed system, and conducting a user testing with sample of youth community as the main target. Using this project, it is expected that it can be a preliminary study to evaluate the possibility of text-based games in encouraging young generation to improve their reading behaviour in Indonesia.

# دريافت فورى 🛶 متن كامل مقاله

- امکان دانلود نسخه تمام متن مقالات انگلیسی
  امکان دانلود نسخه ترجمه شده مقالات
  پذیرش سفارش ترجمه تخصصی
  امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
  امکان دانلود رایگان ۲ صفحه اول هر مقاله
  امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
  دانلود فوری مقاله پس از پرداخت آنلاین
  پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات
- ISIArticles مرجع مقالات تخصصی ایران