Promoting local culture through digital learning media

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Abstract. This paper aimed to implement a digital learning media application to study local culture of an area in Indonesia called Cireundeu. The application, named “learning special food for Cirendeu” introduces special food called Rasi, a cassava-based staple food. The application has been designed using several language programming such as html, css, and javascript. It is then converted using node.js and electron.js frameworks so that the application can be run on desktop. After a trial on both Windows 10 and Windows 7 operating systems, it has been proven that the application runs well. The results of the study also shows that the application is both practical and user-friendly since it appears to be portable and displays interesting menus and sub-menus. Thus, it can be concluded that digital platform and local wisdom are such a great combination in learning.

1. Introduction
The development of Information and Communication Technology (ICT) has been affecting human life in various aspects of life. Its existence has also been proven to be able to give easier access for humans to collect, process, and exchange information. The role of ICT is spreading into both formal and informal sectors. In this modern era, interaction among humans can be carried out in anywhere and anytime without any limit of space and time so that information source can be easily obtained [1]. In the context of education, the development of ICT should be able to become a learning resource which improve students’ self-development to create modern learning situations. ICT is also well-known to give significant contribution, particularly in daily activities in relation to ICT and education [2].

ICT implementation in education is enhancing; one of which is the use of digital media in learning [3,4]. The use of digital media in learning is expected to help teachers create cooperative learning so that they transform from facilitators to learners [5]. In addition, it is also expected to promote local wisdom as culture preservation to students.

In Indonesia, there is an area namely Cireundeu who tightly holds its custom despite the modern era. One of the customs they preserve is their meal namely Rasi [6]. It is a cassava-based staple food which has been consumed since the era of colonialism. In 2008, the ministry of agriculture of Republic of Indonesia awarded this area for food security. Therefore, preserving this culture as well as national food security to the youth (including students) is important. This is to support the maintenance of local culture within the globalization [7]. Considering those facts, this paper focuses on how to introduce the making of Rasi as a symbol of national food security in Cireundeu based on digital media.
2. Method

A digital medium called “learning special food from Cireundeu” is designed as a desktop-based application; however, the development process is based on web. Meanwhile, the programming language used are html, css, and javascript. The application is then converted using node.js and electron.js frameworks so that the application can be run on desktop. Both node.js and electron.js are frameworks used to make cross-platform desktop application such as Linux, Windows, and MacOS using web (JavaScript) [8,9]. The application database is made using SQLite, a flexible database machine easy to manage. It is an alternative in database software [10].

The design of digital media application is shown in Figure 1. In the meantime, the design of the content can be seen in Figure 2. Prior to using the application, users should login with their registered accounts. After login is successful, there will be several options on the main menu with some option on sub menu. For instance, in Rasi menu, the sub menus are what is Rasi, what are its ingredients, how it is made, and so on and so forth.

![Flowchart of Application Development](image)

**Figure 1.** Flowchart of Application Development
Figure 2. Flowchart of Application Content
3. Results and Discussion

The application namely “learning Cireundeu special” food has been created as shown by the flowcharts in Figure 1 and Figure 2. The application is portable, so it is very user-friendly. The trial is done using a laptop with Windows 10 and Windows 7 operating systems. It has been shown that the application is run well in both operating systems. As a start, the login form is displayed as depicted by Figure 3.

In this study, the application designed focuses on the special food in a village in Indonesia namely Cireundeu. The focus of the digital media is to learn Rasi. It starts with what Rasi is (Figure 4), the process of Rasi making (Figure 5), and products made of Rasi. The application also explains the results nutritional analysis of Rasi-based products, which have been obtained from previous studies (Figure 6).

![Login Form of “Learning Special Food of Cireundeu” Application](image1)

![Menu Page of What is Rasi?](image2)
4. Conclusion

This study introduces a learning digital medium in the form of application to study the local wisdom of an area in Indonesia namely Cireundeu. The application has attracted students’ interest to participate in learning. There is some information contained in the application in relation to Rasi, a cassava-based staple food, how to make it, and several products made of it including its nutritional analysis. This portable application is tested using laptops with two operating systems; Windows 10 and Windows 7. The trail has proven that the application runs well in both operating systems.

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