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Tax Identification Socialization Media Application "Aku Tau Pajak Sekarang" Based on Android

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Abstract

Socialization in the form of games or educational games will be more interesting and fun. In addition, the use of applications on smartphones can indeed be a practical alternative to increase the ability to adapt to the surrounding environment and current developments. The purpose of this research is to build a tax introduction application "Aku Tau Pajak Sekarang" as a media of socialization. The application development method used is the Waterfall method. The steps of this research are communication, planning, modeling, construction, and deployment. In application testing, it is carried out by material testing, gain test, media test, and software feasibility test (functional suitability, compatibility, and usability). This research resulted in the application "Aku Tau Pajak Sekarang" which contains educational games that can be used as a media for socializing tax introduction. From the results of tests carried out, the application can be categorized as "very good" so that the application can be declared fit for use. The result of the material test got a percentage of 91.67%, the gain test got a score of 0.3409, the media test got a percentage of 97.5%, the functional suitability shows that the application can be used properly and there are no errors, compatibility shows a percentage of 100%, usability gets a percentage 80.33%.

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INTRODUCTION

Taxpayers in Indonesia show the level of compliance which is still low, it can be seen from the not yet optimal tax ratio in Indonesia which is still low, namely 11.5% for 2018 [1]. The awareness and voluntary concern of taxpayers is very basic. The public still does not believe in the existence of taxes because it still feels burdensome, the payment often has difficulty calculating and reporting it, the public has no understanding of taxes. If taxpayers are obedient and aware of paying taxes, this attitude will not only lead to obedience, obedience and discipline but also a critical attitude as well [2]. Taxpayer compliance is not only supported by awareness and concern factors. Knowledge of taxation can affect taxpayer compliance [3]. Tax knowledge is the ability that taxpayers have regarding their rights and obligations as taxpayers so that taxpayers are able to avoid taxation sanctions [4]. Taxpayers will comply with taxation if they have motivation from within the taxpayer.

Tax socialization helps increase perceptions of business actors about the importance of paying taxes. Lack of socialization may have an impact on the low level of public knowledge about taxes which causes low public awareness to report and pay taxes which in turn may lead to a low level of taxpayer compliance [5]. In addition to improving tax compliance, tax socialization also affects tax knowledge for taxpayers. The increasing socialization of taxation carried out by the government will increase the sense of compliance of individual taxpayers to pay on time and report correctly.

Socialization in the form of games or educational games will be more interesting and fun for children. Games or educational games have a positive impact on the improvement of understanding to children who use games the educational[6]. Educational games have an attractive appearance will be able to further increase children's knowledge in understanding the context or information in the game [7]. Experts suggest that using applications on smartphones can indeed be a practical alternative to improve a child's ability to be able to adapt to the surrounding environment and the times.

The purpose of this research is to build a social media application for introducing taxes "Aku Tau Pajak Sekarang". The results of this study are expected to be able to help provide tax education. The first step in this research is to collect information by means of literature study, observation, and interviews. Furthermore, the design is carried out to determine the application to be made. After the design is complete, the application is made and the application is tested. The final step after testing the application, application marketing will be carried out on the Google Play Store.

METHODS

The method of software development in tax introduction social media applications uses the Waterfall method, also known as the System Development Life Cycle. According to Pressman and Maxim (2015: 42), the Waterfall method consists of 5 processes, namely:

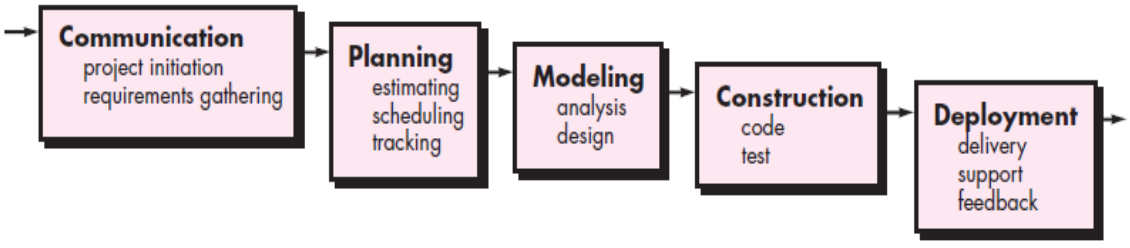

Figure 1. Stages of the Waterfall method

Communication

The tax imposition socialization media application contains a basic introduction to taxes for children. There are 3 menus that will be displayed in the tax introduction socialization media application, namely the 'Main' menu which is used to start the game, the 'Cara Bermain' menu which contains how to play the game, and the 'Yuk Baca!' menu which contains basic knowledge about the introduction of taxes for children. The shape of the game in game the introduction of the taxis gaming platforms. Users will collect coins that have been provided and will pay and report taxes correctly.

Information collection techniques used in this study, namely literature study, observation, and interviews. The data collection technique is carried out as a first step in research in finding problems that occur in the surrounding environment. This is done by collecting literature, journals, papers, books, articles, newspapers, the internet, as well as other readings that are related to research. The next stage is to make observations at the Regional Office of the Directorate General of Taxes, Central Java I to collect information. This stage discusses information that includes things about taxes for children who will enter the world of work and information about schedules and socialization programs that will be carried out by the Regional Office of the Directorate General of Taxes, Central Java I. The next stage is data collection by direct observation. towards the students of SMK Al Asror Semarang through the Deputy Principal. This stage discusses information that includes things about students, such as the average age and activities carried out after graduating from school and information about the socialization that has been carried out at the school.

Planning

At the planning stage, the estimated time and scheduling of making the application are described, the tasks that will be carried out, the risks that may occur such as the time for making the application may exceed a predetermined time, and the results that will be made are the Aku Tau Pajak Sekarang application.

The tasks that will be carried out are collecting data by means of literature study, observation, and interviews. Furthermore, the design is carried out to determine the application design to be made. After the design is complete, the application is made. After the application has been made, it is tested for the application. The last step after testing the application is marketing on the Google Play Store.

In this research, of course, there are risks that will occur, such as the time for making the application exceeds the predetermined time, an error occurs during application creation, application installation on a smartphone is affected by the operating system, RAM, and screen size.

This research will produce the Aku Tau Pajak Sekarang application, which is a tax introduction application for children aged 13-18 years. In this application, awill be provided game in which there is knowledge about taxes. In addition, there is a special menu that includes tax introduction material for children.

Modeling

In the modeling stage in the form of a system architecture design and modeling stage that focuses on device architecture design, user interface display with the system, and program algorithms.

Use Case Diagrams

Use case diagrams are used to describe the interactions that occur between the user and the system in the application. The following is the application use case diagram Aku Tau Pajak Sekarang.

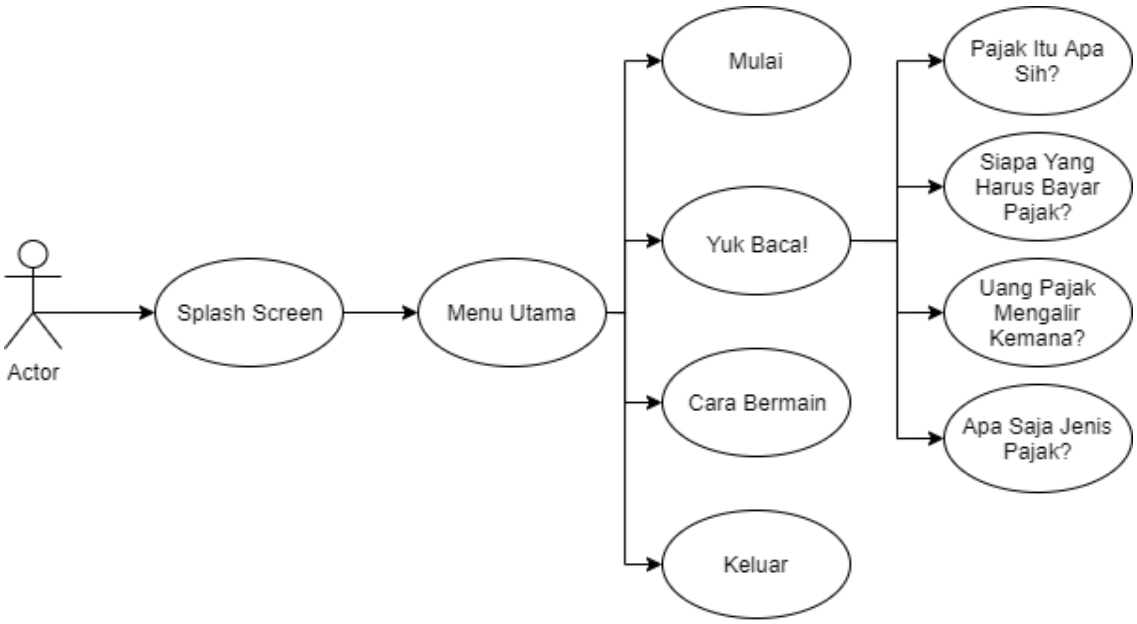

Figure 2. Use Case Diagram Applications Aku Tau Pajak Sekarang

Construction

The construction stage is the process of translating the design form into code or machine-readable language. After the coding is complete, it is tested on the system and also the code that has been created.

1. Code

In this stage, the source code is written in implementing the requirements in the application to be made. The steps in this stage are very important to the whole process. To make this application using the C# programming language using the Unity Game Engine software to perform coding.

2. Testing

Testing in this research is based on the aspects of material testing, gain test, media test, and software feasibility test which includes aspects of functional suitability, compatibility, and usability.

RESULTS AND DISCUSSION

The results obtained include the results of the application display and the results of application testing.

1. Application Display Results

Aku Tau Pajak Sekarang have 5 main menus, namely the 'Main' menu, the 'Yuk Baca!' menu, the 'Cara Bermain' menu, the 'High Score', menu and the 'Keluar' menu.

2. Splash Screen Display

The splash screen is the initial display of the application when the application is run. This view contains the short title of the application.

3. Main Menu Display

On the main menu page display there are 5 menus, namely the 'Main' menu, the 'Yuk Baca!' menu, the 'Cara Bermain' menu, the 'High Score' menu and the 'Keluar' menu. The 'Main' menu is a menu for playing games tax recognition. The 'Yuk Baca!' menu contains basic information about the introduction of taxes for children. The 'Cara Bermain' menu contains how to play the game. The 'High Score' menu contains a collection of coins obtained. The 'Keluar' menu contains the application builder's profile and to exit the application.

4. 'Main' Menu Display

On the 'Main' menu page there is a level select page consisting of 4 buttons, namely the level 1 button to start the game tax introduction, level 2 to continue the game that has been completed at level 1, level 3 to continue the game that has been completed at level 2 , and the back button to return to the main menu page.

5. ‘Yuk Baca!’ Menu Display

On the ‘Yuk Baca!’ menu there are 5 buttons, namely "Pajak Itu Apa Sih?" which contains the meaning and characteristics of tax clearly, "Siapa Yang Harus Bayar Pajak?" which explains about who is required to pay taxes and the requirements to pay taxes, "Uang Pajak Mengalir Kemana?" which explains the usefulness of the collected tax money, "Apa Saja Jenis Pajak?" which will explain the type of tax according to the collector, and the back button to return to the main menu page.

6. ‘Cara Bermain’ Menu Display

The ‘Cara Bermain’ menu page displays instructions on how to play the tax introduction game and 1 button, namely the back button to return to the main menu page.

7. ‘High Score’ Menu Display

The high score menu page displays a collection of coins obtained by players.

8. ‘Keluar’ Menu Display

The ‘Keluar’ menu displays the application builder's profile page and will exit the application.

The following is a display of the Aku Tau Pajak Sekarang application:

Figure 3. Splash Screen Display

Figure 4. Main Menu Display

Figure 5. ‘Main’ Menu Display

Figure 6. 'Yuk Baca!' Menu Display

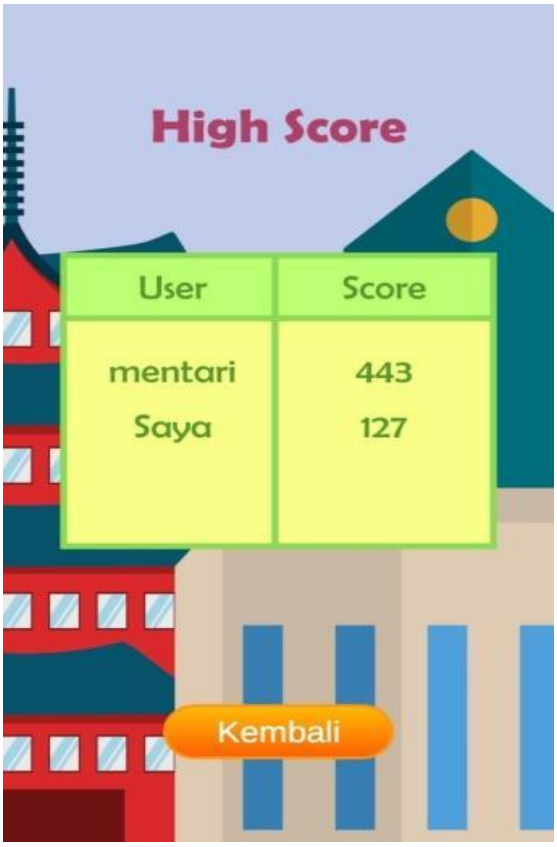

Figure 8. 'High Score' Menu Display

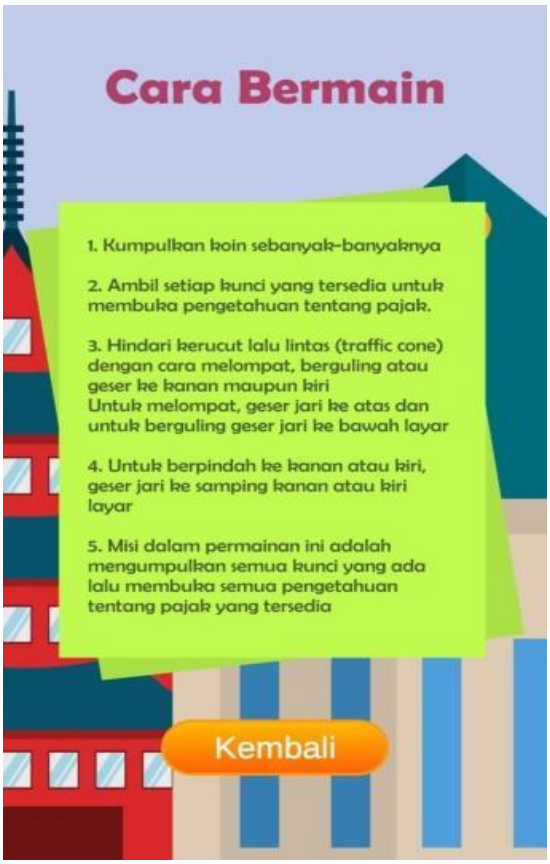

Figure 7. 'Cara Bermain' Menu Display

Figure 9. 'Keluar' Menu Display

The results from each of the Aku Tau Pajak Sekarang application tests for material testing conducted by representatives from the field of extension, service and community relations at the Regional Office of the DJP Central Java I obtained a percentage of 91.67%, the gain test was conducted by 16 students of SMK Al Asror Semarang obtained a gain score of 0.3409, the media test conducted by 2 media expert lecturers in Semarang State University obtained a percentage of 97.5%, the functional suitability is carried out using a black-box test showing that the application can be used properly and there are no errors, compatibility is done by installing and running the application using several android smartphones with different OS versions, RAM, and screen sizes showing a 100% calculation percentage, usability by 16 students of SMK Al Asror using the USE Questionnaire questionnaire obtained a percentage of 80.33%.

Table 1. Material Test Results

Problem Number	Aspect Testing	Score Obtained	Maximum Score
1	Material	1	1
2	Conformity	1	1
3		1	1
4		1	1
5	Ability	1	1
6		1	1
7		1	1
8		0	1
9	Ease	1	1
10		1	1
11		1	1
12		1	1
Total Score		11	12

Table 2. Gain Test Results

Name	Pretest	Postest
Ahmad Diky Gasar	55	60
Ahmad Hafid Elfian	15	25
Devon Surya	50	45
Dina Aulia A	50	75
Febri Ariyana Fika Reza	60	75
Husein Atmajaladri	25	65
Lely Fitrianingsih	45	55
Raena Agata Nanda	55	80
Rahila Ratu Anggana	45	75
Riski Puspha Sari	60	65
Salma	40	80
Setyo Difa Maulana R	50	45
Silvia Deris P	45	65
Ulya Akhlakul Karimah	40	60
Jannah Wahidatul	45	85
Yoga Adi Saputra	25	55
Average	44.06	63.13

Table 3. Test Results Media

Question Number	Tests aspect	Score		Total Score	Maximum Score
		Media Expert 1	Media Expert 2		
1	Display	1	1	2	2
2		1	1	2	2
3		1	1	2	2
4		1	1	2	2
5	Quality	1	1	2	2
6		1	1	2	2
7		1	1	2	2
8	Ease	1	1	2	2
9		1	1	2	2
10		1	0	1	2
11		1	1	2	2
12		1	1	2	2
13		1	1	2	2
14		1	1	2	2
15	Ability	1	1	2	2

16	1	1	2	2
17	1	1	2	2
18	1	1	2	2
19	1	1	2	2
20	1	1	2	2
Total			39	40

Table 4. Compatability Test Results

Test	Running	Failed
Installing applications on the device	5	0
Running applications on the device	5	0
Total	10	0

Table 5. Usability Test Results

Aspects	Percentage (%)
Usefulness	79.06
Ease of Use	81.93
Ease of Learning	81.25
Satisfication13-18	78.75

Discussion

The Aku Tau Pajak Sekarang application is a tax introduction application for children aged 13-18 years. In this application, a game will be provided in which there is knowledge of the introduction of taxes for children. In addition, there is a 'Yuk Baca!' menu which includes material on introducing taxes to children. The Aku Tau Pajak Sekarang application was made with an android platform so that it can reach a wider scope and can be used as an interesting tax introduction socialization media. This application provides a game with 3 levels. At each level, there are several materials regarding taxes such as the introduction of NPWP, income tax and local taxes.

The results of the application testing are obtained from various types of tests, such as material testing, media testing, gain testing, and software feasibility testing. Testing on the software feasibility test uses 3 tests, namely functional suitability, compatibility, and usability. Based on the test results obtained, the Aku Tau Pajak Sekarang application is feasible to use because both the content of the material, the media, and the feasibility of the software have very good results.

CONCLUSION

The Aku Tau Pajak Sekarang application is a tax introduction application for children made with the Unity Game Engine. In making the Waterfall method through stages in the form of communication, planning, modeling, construction, and deployment. The results of testing the Aku Tau Pajak Sekarang application for a material test conducted by representatives from the field of extension, service and public relations of the Regional Office of the DJP Central Java I obtained a percentage of 91.67%, the gain test conducted by 16 students of SMK Al Asror Semarang obtained a value gain score 0.3409, the media test conducted by 2 media expert lecturers in the State University of Semarang obtained a percentage of 97.5%, the functional suitability is carried out using a black-box test showing that the application can be used properly and there are no errors, compatibility is done by installing and running the application using several android smartphones with different OS versions, RAM, and screen sizes showing a 100% calculation percentage, usability by 16 students of SMK Al Asror using the USE Questionnaire questionnaire obtained a percentage of 80.33%. Based on the results of these tests, the Aku Tau Pajak Sekarang application is suitable as a media for socializing the introduction of taxes for children.

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