



Developing An Electronic Module Based on Local Wisdom in Dokan Village to Optimize the Character Education

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Article Info	Abstract
Article History Received: 2022-07-24 Revised: 2022-08-18 Published: 2022-09-07 Keywords: <i>Developing an Electronic; Local Culture; Character Education.</i>	The research aims to develop an electronic module that contains the local wisdom in Dokan Village. Nowadays, character education is needed to create a generation that has cooperation, togetherness, and caring for each other and thus local wisdom has values that can be used to teach character education. This research is research and development (R&D) with the 4 D design proposed by Sivasailam Thiagarajan. 4 D design consists of define, design, development, and dissemination. The research involved experts in learning media, Karo culture, and language to assess the electronic module. The sample is fourth-semester students in English Department Study Program, STKIP Al Maksum. The research used one group pre-test post-test to know the influence of the electronic module in teaching character education to the students. Based on the discussion, the expert in learning media, Karo culture, and language was assessed electronically in the two stages. In the first stage, the electronic module was invalid the score range was 58%. In the second stage, the electronic module was valid the score range was 90%. Furthermore, based on the t-test, the electronic module was effective to teach character education to the students.
Artikel Info	Abstrak
Sejarah Artikel Diterima: 2022-07-24 Direvisi: 2022-08-18 Dipublikasi: 2022-09-07 Kata kunci: <i>Modul Elektronik; Kearifan Lokal; Pendidikan Karakter.</i>	Penelitian ini bertujuan untuk mengembangkan modul elektronik yang memuat kearifan lokal di Desa Dokan. Pendidikan karakter dewasa ini sangat dibutuhkan untuk menciptakan generasi yang memiliki sikap gotong royong, kebersamaan dan saling peduli sehingga kearifan lokal memiliki nilai-nilai yang dapat digunakan untuk mengajarkan pendidikan karakter. Penelitian ini merupakan penelitian dan pengembangan (R&D) dengan desain 4 D yang diajukan oleh Sivasailam Thiagarajan. Desain 4 D terdiri dari define, design, development dan diseminasi. Penelitian ini melibatkan pakar media pembelajaran, budaya dan bahasa Karo untuk menilai modul elektronik. Sampel penelitian ini adalah mahasiswa semester IV Program Studi Jurusan Bahasa Inggris STKIP Al Maksum. Penelitian ini menggunakan one group pre-test post-test untuk mengetahui pengaruh modul elektronik dalam pengajaran pendidikan karakter pada siswa. Berdasarkan diskusi, ahli media pembelajaran, budaya dan bahasa Karo menilai elektronik dalam dua tahap. Pada tahap pertama, modul elektronik tidak valid dengan rentang skor 58%. Pada tahap kedua, modul elektronik dinyatakan valid dengan rentang skor 90%. Selanjutnya berdasarkan uji-t, modul elektronik efektif untuk mengajarkan pendidikan karakter kepada siswa.

I. INTRODUCTION

Dokan village is located in Karo regency which is approximately 95 kilometers from Medan city. Dokan village is already known as a traditional village in Karo Regency. Dokan village is one of the cultural villages where the people still hold the Karo cultural customs in their daily lives, such as kerja tahun which is held once a year (in July) to celebrate the planting process, marriage ceremonies and 7 monthly baby ceremonies, death ceremonies, and other traditional events. As a cultural village, Dokan has cultural customs that are part of local wisdom that must be introduced and maintained. Local wisdom is part of the culture of a society that cannot be separated from the language of the community

itself. Local wisdom is usually passed down from generation to generation by word of mouth. Local wisdom is found in folklore, proverbs, songs, and folk games, beliefs, and in the culture that coexists with the people who give birth to a custom. In addition, local wisdom can be knowledge found by certain local communities through the experience of trying and integrating with the understanding of culture and the natural state of the environment Agustina (2018). Local wisdom is the original wisdom or knowledge of a society that comes from the noble value of cultural traditions to regulate the order of people's lives. Local wisdom is a broad phenomenon Sibarani (2012).

Arious traditions implemented by the Dokan Village community are a form of local wisdom that contains character values and can be used as teaching materials to teach character education to students so that a generation is expected to be born that is not only cognitively intelligent but has the character of cooperation, courtesy, and love of local culture. Character education has the same essence and meaning as moral education. The goal is to shape the child's personality to become a good human being and a good citizen. The criteria of a good human being and a good citizen for society and nation are certain social values that are much influenced by the culture of the people and the nation. Therefore, the nature of character education in the context of Indonesian education is value education, namely the education of noble values derived from the culture of the Indonesian nation itself, to foster the personality of the younger generation Gunawan (2011). Character education based on local wisdom also has the purpose of changing the attitude and behavior of existing human resources to increase work productivity to face various challenges in the future. Furthermore, character education is a deliberate effort to help a person he can understand, pay attention to, and perform core ethical values. The benefits of implementing local wisdom can also increase the spirit of cooperation, and togetherness, being open to each other, developing a family spirit, building better communication, and responding to the development of the outside world Rasyid (2017). However, based on the observations of researchers, local wisdom in Dokan is almost unknown to the public at large. Research on local wisdom has been Research on local wisdom has been carried out by previous researchers, such as: Armawan (2017) research on the development of English for guidance based on local wisdom teaching materials. The results of this study are teaching materials based on local wisdom on the island of Bali and used as English teaching materials for courses English for Guiding, Department of English Education, Undhiksa.

However, previous research produced printed teaching materials. The provision of teaching materials in digital format or in the form of electronic modules has not been done by previous researchers. Therefore, in this study will produce an electronic module that can be opened through the website without installing an application on a smartphone to open the electronic module so that students can easily access

the electronic module. The main content in the electronic module is local wisdom in Dokan Village which contains character education values. Therefore, in order to introduce local wisdom in Dokan Village and teach character education to students, researchers plan to develop electronic module. Electronic modules (e-modules) are electronic format modules used with computers. The E-module can display text, images, animations, and videos through the computer. The E-module can also be displayed in smartphone. Suyoso & Nurohman (2014) The electronic module will be integrated with the website so that every student can easily access and read the module anywhere and anytime. Development of electronic modules (e-modules) using the application iSpring Suite 9. Ispring Suite is one of the tools integrated with Microsoft Powerpoint that can be published in HTML form and can be run on android devices with Intel XDK software.Charmonman (2015).

The Ispring Suite app has a variety of features that can be used to create presentations, quizzes, surveys, interactive conversation simulations, and learner work-sheets (LKPD). In addition, this application can also be used for online and offline learning purposes. Sekar & Yusliana Ekawati (2019). The outcome of Ispring suite 9 can be applied in the website. Modules (e-modules) are electronic format modules used with computers. The E-module can display text, images, animations, and videos through the computer. The E-module can also be displayed in smartphone. The electronic module will be integrated with the website so that every student can easily access and read the module anywhere and anytime. Development of electronic modules (e-modules) using the application iSpring Suite 9. Based on the explanation above, the author tries to solve the problem by developing an electronic module the main content is local wisdom in Dokan Village. The research aims to teach character education to the students by using the electronic module as a learning media. Next, the author wanted to promote the local wisdom in Dokan Village so that the citizen interested to visit Dokan Village.

II. METHOD

The research approach used is a quantitative this research is a type of R&D research (Research and Development). Research and Development is a research method used to validate and develop a product. Sugiyono (2019). This study was conducted to develop and produce a learning media

product with the aim of introducing the local wisdom of Dokan Village and teaching character education to students. The products that will be produced are electronic modules that will be integrated with the website with Dokan village local wisdom content to teach character education to students. The research Model used is the Four-D models proposed by Sivasailam Thiagarajan consists of four stages, namely: (define), (design), (development) and (dissemination) Mulyatiningsih (2011). The subject of research is the fifth semester student Society of English Education Study Program, STKIP Al Maksum as a testing ground.

The research procedure consists of four stages, namely:

1. At the stage define, researchers collect various information based on the analysis of needs and the information is used as material for product planning teaching materials that are expected to meet the needs sourced from the research site.
2. At the stage design, researchers design and develop an initial draft (prototype) electronic module. Information obtained at the stage define used to develop the initial design.
3. Further, at the stage of development initial draft of the product that has been designed at the stage design furthermore, it will be validated by educational technologists, cultural figures and linguists. Stage development implemented in order to analyze, evaluate and revise the electronic module products.
4. After the product design is validated by the validator, the weakness will be known and the next stage is the researcher to improve the electronic module design on the input provided by the validator. After revising the design, the researchers tested the product to measure the effectiveness of electronic modules in learning, especially in teaching character education to students. Findings in the trial phase will be the basis for revising electronic module products. After the design revision has been completed and declared effective and feasible, then the next stage dissemination namely the distribution of electronic modules to lecturers as teaching materials in teaching character education.

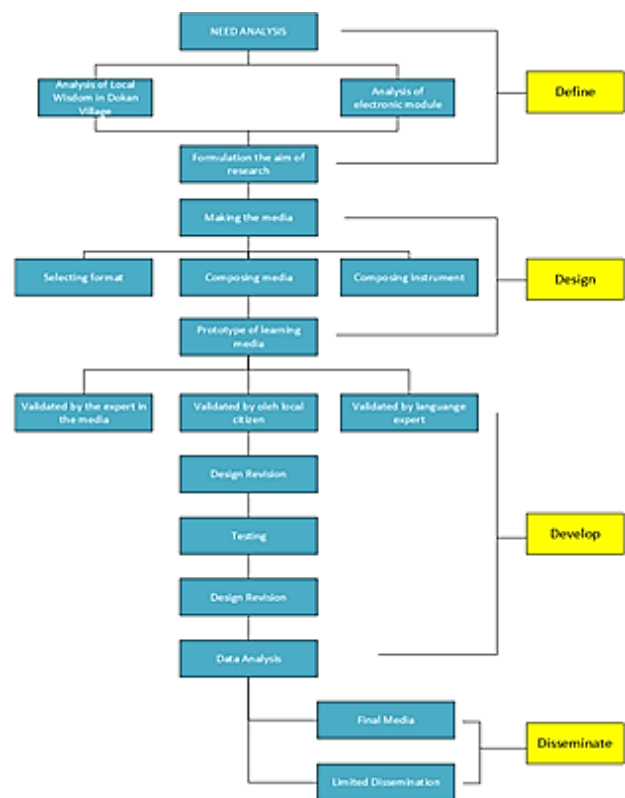


Figure 1. Research flowcart

Data collection methods consist of targets, methods, instruments and research subjects can be seen in the table.

Table 1. Method of data analysis

No	Indicators	Method	Instru- ments	Subject
1	Assessment about electronic module	Question naire	Question-naire sheet	Expert in learning media
2	Reactions about the content of local wisdom in electronic module	Question naire and interview	Question-naire sheet and question list	Karo culture experts
3	Students' unders-tanding of character education	Test	Test	Students of English Education Study Program

The questionnaire of expert was analyzed by using the percentage score of learning media. The formula used to calculate the percentage validation questionnaire of experts and community leaders, namely:

$$\text{Score presentation} = \frac{\text{Total Score}}{\text{Maximal Score}} \times 100$$

Akbar(2013) media validity qualification based on the table below:

Table 2. Media validity qualification

Media validity qualification	
Achievement level	Qualification validity
85,01 % - 100%	Valid
70,01 % - 85,00 %	Quite valid
50,01% - 70,00%	Less valid
01,00% - 50,00%	Invalid

After the electronic module design is improved, the next step is tested to determine the effectiveness of electronic modules in learning, especially in teaching character education to students.

III. RESULT AND DISCUSSION

A. Result

The electronic module contains the local wisdom in Dokan Village developed by following stages in R&D 4 D models consists of four stages, namely: At the define stages, the author did analysis to get the idea that used to develop the initial learning media. The analysis is conducted from observation while teaching and learning process. The author found that in the English for Tourism course, there is no learning media which help students to learn about local wisdom which the local wisdom is one of prominent content in learning English for Tourism. In addition, the author also interviewed with the local citizens in Dokan Village to know the description of local wisdom in Dokan Village. The result of observation and interview were used as to formulate the aim of the research and making the media. After gathering need analysis, the next steps prepared the media. In the define stage, the author prepared to make the media by following these steps. The first step is the author selects the design of the media which the design of the media is electronic module. Next, the electronic module arranged which the local wisdom in Dokan Village is the main content. The module was installed in the wordpress website and therefore, the module transformed into electronic module. The aim is to make students may easy reading the module through smartphone and the students are easy to read the module anywhere and anytime.



Figure 2. The display of electronic module



Figure 3. Table of contents

The electronic module can be accessed in this following link <http://www.elearningdonny.my.id/2022/09/03/local-wisdom-in-dokan-village-a-module>. In the development stage, the media was examined the expert in design, Karo culture and language. The assessment did by using the questionnaire to assess the prototype of learning media. The result of expert in media is displayed in the table 2.

Table 3. Assessment of Learning Media Prototype

Expert Validation	Score percentage	
	First stage	Second stage
Expert in learning media	57%	87%
Expert in Karo culture	56%	89%
Expert in Language	59%	92%
Criteria	Less valid	Valid

In the first stage, the expert in learning media assess the product by using the three criteria of assessment, there are display, design, and programming. In the first stage, an expert in learning media gave score with percentage 57% and therefore, the score can be categorized as less valid. The author revised the media based on the suggestion and recommendation in the first stage. In the second stage, the expert in learning media

assessed the media and as a result, the expert gave score 87% and therefore, the score category is valid. Expert in Karo culture also assessed the media. In the first stage, the expert assessed and gave score 56% or less valid. The expert gave suggestion to add more detail about local wisdom in Dokan Village, especially local wisdom involved in the food and traditional house. Based on the suggestion, the author revised the media and submit the electronic module to the expert. In the second stage, the expert gave score 89% and can be categorized is valid. Language expert assessed the media by using indicator in language used. The indicator consist of: straightforward, communicative, dia-logical and Interactive, conformity with students' development and grammar. In the frist stage, the language expert gave score 59% percent or can be categorized is less valid. The recommendation and suggestion in the frist stage used to revise the electronic module. Next, the author revised the electronic module and submit to the expert in language. In the second stage, the expert in language gave score 92% percent or can be categorized as valid media.

The electronic module was already assessed by the expert in media, Karo culture and language. Based on assessment from each expert, the media was valid and ready to be used in the classroom. To know the effectiveness of electronic module in teaching character education to the students, the author used one-group pretest-posttest design. The subject is the fourth students consisting of fifteen students who followed English for Tourism course, English Department Study Program, STKIP Al Maksum. In the pre-test, the author teaches the material about character education using local wisdom in Dokan Village. In this stage, the author did not use any learning media in the classroom. In the end of course, the author gave 25 questions to the students. In the post test, the author taught character education by using electronic module as the media in teaching character education by using local wisdom in Dokan Village. In the end of course, the author gave 25 questions to the students.

Table 4. Paired sample statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE-TEST - POST-TEST	53.67	15	7.825	2.021

POST-TEST	76.40	15	3.291	.850
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Based on the above table, the mean score of pre-tests is 53.67. Furthermore, the mean score of post-tests is 76.40. There is improvement from mean score between pre-tests and post test.

Table 5. Paired Samples Correlations

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	PRE-TEST & POST-TEST	15	-.150	.594

The above table depicted the correlation between pre-tests and post-tests. The sig value is 0.594 compared with level of significant 0.05 and thus, the values of sig is bigger than level of significant 0.05. Therefore, based on the testing criteria stated that there is no correlation between pre-tests and post-tests.

Table 6. Paired t-test

Paired Samples Test									
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		n			Lower	Upper			
Pair 1	PRE-TEST - POST-TEST	15	8.932	2.306	-27.680	-17.787	-9.857	14	.000

The table above showed the result of t-test from the data pre-test and post-test. The criteria of t-test are the value of sig (2-tailed) < 0,05, it can be categorized there is effect of the electronic module in teaching character education to the students. Meanwhile, if the the value of sig (2-tailed) > 0,05, it can be categorized there is no effect of electronic module in teaching character education to the students. Based on the level of criteria, the value of sig (2. Tailed is 0.000 compared with level of significant 0,05 and thus, it can be stated that the value of sig 2 tailed is lower than 0,05. Therefore, based on the criteria, the electronic module was effective to teach character education to the fourth students in the English for Tourism Course. After the electronic module was valid and effective to teach character education, the last stage is dissemination. The dissemination is limited only in the scope of English Department Study Program, STKIP Al Maksum. The future, the electronic module is needed to be tested with

the large subject so that the electronic module can be used by the teacher in Indonesia to teach character education to the students.

B. Discussion

Based on the results of the analysis of The result showed that the electronic module was valid after assessed by the expert in media, Karo culture and language. In addition, based on t-test, the electronic module was effective to teach character education the the students who follow English for Toursim course.

IV. CONCLUSIONS AND SUGGESTIONS

A. Conclusions

Based on the result, the electronic module was assessed by the expert in learning media, Karo culture and language. In the first stage, the expert in learning media gave score with percentage 57% percent. Next, expert in karo cultre also assessed the media and gave score 56% percent. In the frist stage, the expert in language gave score 59% percent. Based on result in first stage, the electronic module was invalid. After revising the electronic module, in the second stage, expert in learning media assessed and gave score 87% percent. Next, the expert in Karo culture gave score 89% percent. The expert in language gave score 92% percent. The score of each expert in the second stage can be categorized is valid. The electronic module was examined to know the effectiveness to teach character education. To know the effectiveness, the author used one-group pretest-posttest design. Based on pre-test and post test testing, there is improvement of mean score between pre-test and post-test. Furthermore, based on t-test result, the value of sig (2. Tailed is 0.000 which compared with 0,05 as the level of significant

B. Suggestions

The suggestions of the research are:

1. The lecturer in English Department has to create a learning media in digital format so that the students were interested in the process of teaching and learning
2. Local wisdom has to be maintained and teach to the students so that the local wisdom will be known by the citizens.

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