

Development Of Inventory Applications Via Web Media To Improve The Character Of Responsibility In Vocational School Students In The City Of Palangka Raya

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Article Information	ABSTRACT
Received: July 2023	This research and development aim to develop an Inventory Application via web media on the character of responsibility that is feasible and appropriate, as well as to know the effectiveness of developed web media for the character of responsibility Inventory Application. We are using the Research and Development (R&D) Method. Research and Development (R&D) procedures consist of two main objectives, namely: (1) developing products and (2) testing the effectiveness of products in achieving goals. The development process usually stops at the stage of producing a product with limited trials, but such a product cannot be widely used, so the product needs to be validated. The results of the research and development of the Inventory Application via web media on the character of responsibility have obtained the feasibility category "Very Feasible" with each assessment result as follows: 1) Media expert validation with a score of 86.50% of "Very Feasible" category, 2) Material expert validation with a score of 93% of "Very Feasible" category, 3) Linguist expert validation with a score of 92.8% of "Very Eligible" category, 4) Practitioner Expert validation with a score of 94% of "Very Eligible" category, and 5) Product assessment validation (response) of students with a score of 90.80% of "Very Eligible" category. The assessment of the Inventory Application product via web media of the character of responsibility that has been developed has been able to influence students' understanding of the character of responsibility effectively, as seen from the change in the level of understanding of the character of responsibility for students, which was originally 90% in the "Low" category, reduced to 36.67%. With these results, the developed Inventory Application via web media of the responsibility character is suitable as a Guidance and Counseling medium.
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INTRODUCTION

Adolescence comes from the Latin word *adolescere*, meaning to grow or to grow into maturity. Adolescence is a period where major physical, intellectual, and emotional changes occur in a person, which causes sadness and doubt and emerges as a conflict with their environment. Sigmund Freud and Erik Erikson believed that adolescent development was full of conflict (Jannah, M. 2016). Adolescence is also a period of searching for identity, a time when individuals look for what they are interested in, what they want, and what potential and shortcomings they have (Prihatiningtyas, 2017).

Character education is important to be taught in schools and instilled in students to become individuals with good and coherent character. Individuals with good character can show responsibility in terms of thinking, actions, and feelings. Character education has an important role in aspects of life, character development, and other aspects. Character education is about teaching certain traditional values, values that are widely accepted as the basis for good and responsible behavior. Character education is provided by cultivating in

person respect, responsibility, compassion, discipline, loyalty, courage, tolerance, openness, work ethic, and love for Almighty God (Adisusilo, 2012).

Character becomes a fixed or permanent trait that overcomes ever-changing contingents. Character is a person's personal values manifested in his attitudes and behavior in everyday life. A person can also know the good and bad values in himself and the surrounding environment. Character is a set of values that have become a habit of life so that they become permanent traits in a person. The character that will be focused on in this research is the character of responsibility. The character of responsibility is the creative side of morality. Responsibility includes caring for oneself and others, being able to fulfill obligations, making a positive contribution or impact to society, being able to alleviate the suffering of others, and being able to create or make the existing world better (Lickona, 2014).

Responsibility must be taught and instilled in oneself from an early age. Outside of school, parents are tasked with instilling responsibility in their children, while at school, it is the teacher's job to instill responsibility in their students. So, in the learning process, it is not only the delivery of material that the

teacher must carry out but the formation of responsible character must also be given more attention.

The Ministry of National Education (Salahudin, 2013) explains that responsibility is a person's attitude and behavior to carry out his duties and obligations, which he should do towards himself, society, the environment (nature, character starting in social and cultural), the State, and God. Almighty. Ministry of National Education (2010) states that the indicators of responsibility are making reports on every activity carried out in verbal or written form, carrying out tasks without being asked, showing initiative to overcome problems in the immediate area, avoiding cheats in carrying out tasks, carrying out duties regularly, active participation in school activities and proposing problem-solving.

Guidance and Counseling Teachers in Schools have the duty and responsibility to improve the character of responsibility in students at school. During the learning process, the phenomenon is the lack of student responsibility in learning at school. Forms of behavior that show low student responsibility are not doing assignments, submitting assignments, and being late for class sessions. Students gave various reasons to the teacher, such as not knowing about the assignment given, not having materials to do the assignment, waking up late, and so on.

Guidance and Counseling Teachers, as part of developing the character of responsibility, need to detect early the level of student responsibility. This detection is carried out as an assessment of students so that they can develop the character of responsibility, an intervention to prevent irresponsible behavior, and a curative action so that students can improve themselves. Currently, the world of education is faced with the Industrial Revolution 4.0. The use of technology has become a necessity in the world of education. Conventional assessments are starting to be abandoned and turning to computer applications. There are various benefits obtained by using technology, such as data accessibility and the duration required to process data, which is better than conventional methods.

Web media has become very popular nowadays in collecting data and disseminating information. Sidik (2014) explains, "The web was originally an information space on the internet, using hypertext technology, users were required to find information by following links provided in web documents displayed in a web browser." Now, the internet is synonymous with the web because of the popularity of the web as a standard interface for services on the internet, from information providers to communication in the form of e-mail and chatting and carrying out business transactions.

Collecting data using the conventional method usually carried out by guidance and counseling teachers to carry out assessments related to students' responsible character has shortcomings, such as the difficulty of collecting and processing data. Therefore, developing an inventory application using web media as an assessment tool in determining students' level of

responsibility is very important. With the ease of collecting and processing data, it will be easier for guidance and counseling teachers to develop appropriate guidance and counseling services to improve students' responsible character. Additionally, an inventory application makes it easier for students to provide data anytime and anywhere because the application can be used via a smartphone with an internet connection.

Inventory development is one of the innovation efforts in describing the details of the character of responsibility you want to develop. An inventory is a series of lists of statements that are arranged systematically according to the desired indicators. Research was carried out to develop an inventory that is suitable for use by students (Marlina & Ahmad, 2015; Santy, Z.A.W, Bariyyah, K, & Soejanto, 2019). If applied conventionally, the inventory will experience problems, namely, distributing it offline to current students. Guidance and Counseling teachers as the front guard in understanding and facilitating students' character of responsibility require innovation in managing inventory online. Guidance and Counseling Teachers can utilize data analysis using web media. Guidance and Counseling Teachers can provide excellent assistance services to students in the form of information and other services. Based on the explanation above, it is very important to develop an inventory application via web media to assist guidance and counseling teachers in improving the character of responsibility of vocational school students in Palangka Raya.

METHOD

The research method in this study uses the development method or research and development (R&D). The R&D research method is used to produce certain products or innovations and test the success of these products in alleviating problems that occur (Sugiyono, 2018). The product that will be produced in this research is an inventory application via web media to increase the character of responsibility among vocational school students in Palangka Raya City. A sample of 300 people will be taken from the population, and they will be given an inventory application via web media to measure the level of students' character of responsibility. Variable. The variables of this research included inventory web media and character of responsibility. Definition of operational and indicator. Development of an inventory application via web media to help guidance and counseling teachers increase students' character of responsibility in a vocational school, which has acceptability criteria so that it could create an assessment tool based on multimedia following the character of social and personal guidance field. The specifics of the data collection techniques and research instruments are explained in the following table.

Table 1.
The Specific Data Collection Techniques and Research Instruments

No.	Data Collection Technique	Instrument
1.	Interview	Interview Guide
2.	Observation	Observation Guide
3.	Questionnaire	Questionnaire & Model Validation Sheet
4.	Documentation	Checklist

The data analysis technique used in this research is Miles and Huberman model data analysis. The data analysis steps in the Miles and Huberman model include (1) data reduction, (2)

Presentation of data, and (3) drawing conclusions and verification.

RESULTS AND DISCUSSION

Based on the research and development that has been carried out, the following results were obtained:

Table 1. Students Understanding of Need Assessment Manual Before Using the Application

No	Interval	Frequency	Percentage (%)	Criteria
1	1 - 7	12	40%	Very Low
2	8 -14	15	50%	Low
3	15 - 21	3	10%	High
4	22 - 28	0	0%	Very High
SUM		30	100%	

The results in the table above show that the sample taken to measure the level of understanding of the assessment regarding the results of the needs assessment that has been given by guidance and counseling teachers manually shows that 40% of the data is in the "very low" criteria and 50% is in the "low" criteria." which means that if added up the data will show that

90% of students feel bored and less interested in the assessment given by the guidance and counseling teacher and students do not yet have an understanding of the importance of the assessment given.

Table 2. Media Expert Validation Result

No	Validator Name	Validation Result	Note
I	Dr. Fendahapsari Singgih Sendayu, M.Pd.	86,50%	Very Feasible

Based on the media expert validation results above, the results obtained were 86.50%, which indicates that the Inventory

Application via web media has the character of responsibility in the "Very Feasible" category.

Table 3. Material Expert Validation Results

No	Validator Name	Validation Result	Note
I	Esty Pan Pangestie, M.Psi., Psikolog	93%	Very Feasible

Based on the results of the material expert validation above, the results obtained were 93%, which indicates that the

Inventory Application via web media has the character of responsibility in the "Very Feasible" category.

Table 4. Linguist Validation Result

No	Validator Name	Validation Result	Note
1	Herda Fitri Br. Ginting, S.Pd., M.Pd	92,8%	Very Feasible

Based on the results of the validation by language experts above, the results obtained were 92.8%, which indicates that

the Inventory Application via web media has the character of responsibility in the "Very Feasible" category.

Table 5. Practitioner Expert Validation Result

No	Validator Name	Validation Result	Note
1	Erni Dwi Lestari, S.Pd.	95%	Very Feasible
2.	Veronica Oktadewi Taradifa, S.Pd.	92 %	Very Feasible
3.	Ria Heksarini, S.ST.	95%	Very Feasible

Based on the expert practitioner validation results above, the average results obtained were 94%, which indicates that the

Inventory Application via web media has the character of responsibility in the "Very Feasible" category.

Table 6. Product Evaluation Result (Response) of Student

No	Statement	Validator Score					Average	%	Note
		1	2	3	4	5			
1	Desain Aplikasi Inventory Melalui Media Web Karakter Tanggung Jawab								
	a. Desain Inventory Application Via Web Media of Character of Responsibility Design	4	5	5	5	4	4,6	92%	Very Feasible
	b. Web Media's Ease of Access	5	4	5	5	5	4,8	96%	Very Feasible
2	Intelligibility of Image and Font								
	a. Font Style is Intelligible.	5	4	4	5	4	4,4	88%	Very Feasible
	b. Text is Readable	5	5	5	4	5	4,8	96 %	Very Feasible
	c. Image is Clear	4	5	5	5	4	4,6	92%	Sangat layak
	d. Image Placement is fit	4	4	5	4	5	4,4	88%	Very Feasible
3	Material Discussion								
	a. Material Objective is Clear.	5	4	5	5	5	4,6	92%	Very Feasible
	b. Discussion is Easy to be Understood	5	5	4	5	4	4,6	92%	Very Feasible
4	User Guide								
	a. Display is Clear and Easy to Use	5	4	5	5	4	4,6	92%	Very Feasible
	b. User Guide is Present	4	4	4	4	4	4	80%	Very Feasible
	Average Feasibility	4,6	4,4	4,7	4,7	4,4	4,54	90,80	Very Feasible

Based on the result of the recapitulation of product assessment by students above, the result obtained is 90.80%, which

indicates the Inventory Application Via Web Media Character of Responsibility is in the "Very Feasible" category.

Table 7. Student Understanding of Need Assessment Manual After Using The Application

No	Interval	Frequency	Percentage(%)	Criteria
1	1 - 7	3	10%	Very Low
2	8 -14	8	26,67%	Low
3	15 - 21	10	33,33%	High
4	22 - 28	9	30%	Very High
SUM		30	100%	

The results obtained in the table above show that the sample taken to measure the level of understanding of the assessment regarding the needs assessment results, which have been carried out manually by guidance and counseling teachers, has shown a decrease in the "Very Low" criteria to 10% and "Low" to 26.67. %, which means an increase in the "High" criteria to 33.33% and "Very High" to 30%. The Inventory Application via Web Media of the Character of Responsibility developed can have a positive effect in the form of benefits in helping to grow and improve students' understanding of the Character of

Responsibility. Development of Inventory Applications Via Web Media of The Characteristic of Responsibility of vocational school students obtain results which include:

I. Expert Validation Results

Validated data obtained is quantitative data, which were scores on the validated sheet, and qualitative data, which were comments, suggestions, and expert input on the developed product.

Table 8. Recapitulations of Feasibility Assessment on Inventory Application Via Web Media of Character of Responsibility.

No	Respondents	Percentage/Score	Note
1	Media Expert	86,50%	Very Feasible
2	Material Expert	93%	Very Feasible
3	Linguist	92,8%	Very Feasible
4	Practitioner Expert	94%	Very Feasible
5	Students	90,80%	Very Feasible

Based on the percentage/score of the assessment results by the four experts and students above, the developed Inventory Application via Web Media of Character of Responsibility product is in the "Very Feasible" category, so it can be stated that the Inventory Application via Web Media of Character of Responsibility is very good and suitable as a guidance and

counseling medium. The results of input and suggestions submitted by experts for the Inventory Application via Web Media of Character of Responsibility are as follows:

Table 9. Input and suggestions by experts for the Inventory Application via Web Media of Character of Responsibility

No	Expert	General Suggestions Or Input
1	Media Expert	Fise size needs to be reduced and an update on material needs to be considered.
2	Material Expert	The editorial process needs to be fixed
3	Linguist	Non-formal speech needs to be avoided
4	Practitioner Expert	-

Based on data obtained after students used the Inventory Application via Web Media Character of Responsibility for the level of understanding of the assessment regarding the results of the needs assessment that had been given by guidance and counseling teachers manually, it showed that there had been a decrease or decrease in the "Very Low" criteria to 10% and "Low" to 26.67%, which means an increase in the "High" criteria to 33.33% and "Very High" to 30%. The

Inventory Application via Web Media of the Character of Responsibility developed can be said to have a positive effect in the form of benefits in helping to grow and improve students' understanding of the Character of Responsibility in vocational school students.



Figure 1. Student-Side Online Installations

- 1) Search "inventoritanggungjawab.my.id" and click the site.

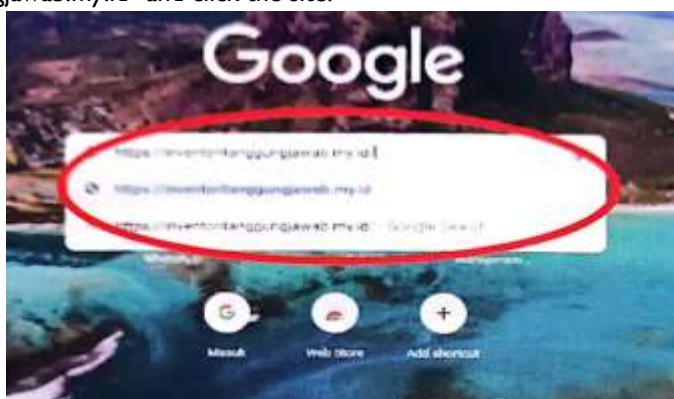


Figure 2. Students' Side Online Installations

- 2) Exit the Login menu, then click the inventory section at the top right.

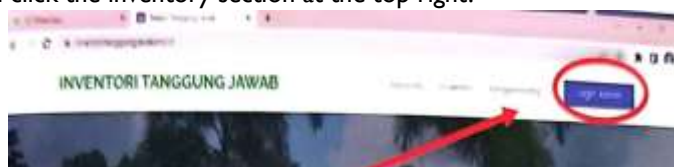


Figure 3. Students' Side Online Installations

- 3) Fill in your identity and make sure you have clicked "Ya, Benar!" to save your identity; then please fill in the inventory according to your actual situation.



Figure 4. Students' Side Online Installations

- 4) If you have finished filling in the honesty inventory, please click "Lihat dan Cetak Hasil" to find out your score.



Figure 5 Students' Side Online Installations

- 5) After that, a display will appear. Click "Save" so that your results can be saved in PDF form.
- b. Administrator and Guidance and Counseling Teacher Installation Guide



Figure 6. Administrator and Guidance and Counseling Teacher Online Installations Guide

- 1) Search "inventoritanggungjawab.my.id ", click "Login Admin."

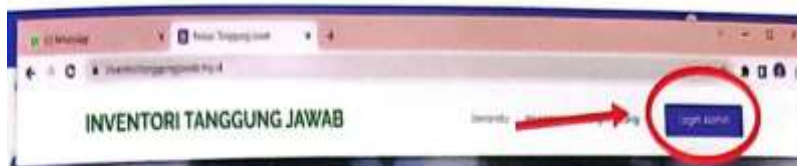


Figure 7 Administrator and Guidance and Counseling Teacher Online Installations Guide

- 2) Login with Counselor Account, Type the Username and the Password



Figure 8. Administrator and Guidance and Counseling Teacher Online Installations Guide

- 3) After you log in as Admin, a screen like the one above will appear. To edit the Responsibility Inventory website and view student results, Counselors can click "Kelola Data."

CONCLUSION

The conclusion of the assessment and development that has been carried out is based on post-development improvements to the Inventory Application via Web Media

Character of Responsibility, which has received revisions based on expert suggestion/input from validation results, that it has been declared that the Inventory Application via Web Media of Students' Character of Responsibility is feasible and the

Inventory Application Via Web Media of Character of Responsibility can be used by Guidance and Counseling teachers as a media reference that can be used in implementing non-BK test support services at school and can be used by Vocational High School students independently as a medium that can provide information regarding understanding the character of responsibility to students themselves. The results of the recapitulation of scores based on expert validation analysis and student responses that have been carried out are as follows:

- a. Media Expert at 86.50% with "Very Feasible" category
- b. Material Expert at 93% with "Very Feasible" category
- c. Linguist at 92,8% with "Very Feasible" category
- d. Practitioner Expert at 94% with "Very Feasible" category
- e. Product Assessment (Response) of Students at 90,80% with "Very Feasible" category

The results obtained in the development of Inventory Application Design via Web Media of Character of Responsibility are in line with Wardiana's opinion in Triyono (2018:79) that the role of technological media in Guidance and Counseling services as a sophisticated media that facilitates the running of a Guidance and Counseling service in school.

This is also in line with Nursalim's opinion in Zaini (2020), which states that Guidance and Counseling media functions as:

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1. The use of media that helps and creates an ideal service environment
2. The media that have been used must be appropriate to the services and needs of students
3. The Media makes the process of searching for material easier so that students can easily understand the material
4. Using media can also help improve services.

Based on the theory above, the Inventory Application via Web Media of Character of Responsibility has fulfilled its function as a Guidance and Counseling media. This is shown by the assessment of the suitability of the products that have been obtained and declared feasible as well as the effectiveness of the products which have been able to help increase students' understanding of the character of responsibility, students who were previously on "low" level at 90%, decreased to only 36.67%. From the results that have been obtained in the development of the Inventory Application via Web Media of Character of Responsibility, it can be concluded that the development stages that have been carried out have been successful and the Inventory Application via Web Media of Character of Responsibility is suitable for use and ready to be used as a guidance and media Counseling.