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The Development of Website-based Faimathematics in Mathematics Learning to Increase Student Learning Interest

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Abstrak

Tujuan penelitian ini adalah untuk mengembangkan *Faimathematics* berbasis *website* dalam pembelajaran matematika untuk meningkatkan minat belajar siswa. Penelitian pengembangan ini menggunakan metode *Research and Development* (R&D) dengan model *ADDIE* yang terdiri dari 5 tahapan yaitu *Analysis, Design, Development, Implementation, and Evaluation*. Produk yang dihasilkan adalah media pembelajaran berbasis *website (Faimathematics)*. Teknik pengumpulan data yang digunakan dalam penelitian ini adalah non tes berupa lembar validasi dan angket minat belajar. Subjek penelitian ini terdiri dari 6 orang siswa kelas IX A pada skala kecil dan 23 orang siswa kelas IX B pada skala besar di SMPN. Hasil penelitian ini menunjukkan: validitas ahli media dengan kriteria sangat valid, validitas ahli materi dengan kriteria sangat valid, validitas ahli pedagogik dengan kriteria sangat valid, dan validitas ahli bahasa dengan kriteria sangat valid. Hasil uji praktikalitas oleh siswa pada uji coba skala kecil mendapat hasil sangat praktis, hasil uji praktikalitas oleh siswa pada uji coba skala besar mendapat hasil praktis, dan hasil uji praktikalitas oleh guru mendapat hasil praktis. Peningkatan minat belajar siswa setelah mengikuti pembelajaran matematika dengan menggunakan *Faimathematics* termasuk dalam kategori sedang.

Kata kunci: Media Pembelajaran Matematika, *Website*, Minat Belajar Siswa

Abstract

The purpose of this study is to develop website-based Faimathematics in mathematics learning to improve students learning interest. This development research uses the Research and Development (R&D) method with the ADDIE model which consists of 5 stages namely Analysis, Design, Development, Implementation, and Evaluation. The resulting product is a website-based learning media (Faimathematics). The Data collection techniques used in this study were a non-test in the form of validation sheets and interest in learning questionnaires. The subjects of this study consisted of 6 students of class IX A on a small scale and 23 students of class IX B on a large scale at SMPN. The results showed: The validity of media experts with very valid criteria, the validity of material experts with very valid criteria, the validity of pedagogic experts with very valid criteria, and the validity of linguists with very valid criteria. The results of practicality tests by students in small-scale trials got very practical results, the results of practicality tests by students in large-scale trials got practical results, and the results of practicality tests by teachers got practical results. Increasing students' interest in learning after participating in learning mathematics using Faimathematics is included in the medium category.

Keywords: Mathematics Learning Media, Website, Student Learning Interest

1. INTRODUCTION

Technological development has influenced many aspects, one of which is the world of education which has an important role in shaping quality human beings. Technology in education includes efforts that can be useful for creating an effective and efficient learning process (Salsabila et al., 2020). Furthermore, based on Government Regulation Number 57 of 2021 states that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and good skills. needed by himself, society, nation, and state. Education can be said as an attempt to develop the abilities one has to become the human he aspires to be. One field of study that has an important role in education is mathematics (Padahala et al., 2021). Mathematics is one of the basic sciences that has an important role in the learning process, it can be seen from the amount of interest that one must have in learning mathematics (Rachmantika & Wardono, 2019). Therefore, having a high interest in learning by using a website can create an active learning process.

Interest in learning in learning mathematics has an important role. According to Asih & Imami (2021), students' interest in learning mathematics is very necessary, because with an interest in learning students will be interested in participating in mathematics learning. Furthermore Prayuga & Abadi (2019), interest in learning can affect the quality of achievement of student learning outcomes in learning mathematics. In line, with Safitri et al. (2020), the growth of student interest in learning is proven to affect student achievement in learning mathematics. Based on these statements, interest in learning can make students interested in participating in learning mathematics and can affect student learning outcomes.

The reality on the ground, students' interest in learning mathematics is still low. In the research of Sucipto & Firmansyah (2021), that students do not yet have an interest in learning mathematics is shown by an average percentage of 46.02%. Natalia et al. (2017), stated that students with low learning interests were only able to solve equations presented in the general form of quadratic equations (procedure). According to Tambunan et al. (2021), the low interest in student learning is caused by the teacher's poor ability to motivate, so students are less interested and give up learning mathematics (Tambunan et al. 2021; Yeh et al. 2019). So, students do not yet have an interest in learning mathematics because the teacher's ability is not good at motivating, besides that students are only able to solve problems procedurally.

At this time, especially in learning mathematics, solving procedural problems can be developed through technology. Technology will continue to develop affecting education and everyday life (Ly et al., 2017). This can be seen from the increasing spread and opening of various kinds of information that can be accessed throughout the world (Jamun, 2018). For example in Nigeria, the education system with the development of information and communication technology can improve education quality, access, and relevance (Bandele & Adekunle, 2015). Therefore, technological developments have a positive impact on the world of education.

The technology that can be used is the internet, the internet plays an important role in the world of education (Feldmann et al., 2021). The use of the internet as a learning resource can be accessed easily and quickly (Safdar et al., 2020). So far, teachers use books as a medium of learning, which sometimes makes it difficult for students to provide information, access, and receive the material. Teachers can use technological advances as supporting media in the learning process (Myori et al., 2019). Therefore, technology can assist teachers in making media.

Media is a means of conveying information in the learning process (Hasan et al., 2019), everything that can be sensed, which functions as a tool for the teaching-learning communication process, an intermediary and a means (Nurdyansyah, 2019), a means or tool as an intermediary for conveying

lesson material from the teacher to students (Karo-Karo & Rohani, 2018). So, the use of media can help students in learning and make students motivated in learning.

The use of technology in the education sector can create new learning media, by utilizing *the website* which is part of the internet. *A website* is a collection of digital pages that contain information in the form of images, animation, text, video, sound, or a combination of all so that it can be accessed by anyone connected to the internet (Sari et al., 2019). The language used in creating *websites* is HTML (*Hyper-Text markup languages*). With HTML, developers can ensure that images, *text,* and multimedia can be combined with other elements when run in *a browser* (Muthohir, 2021). The advantage *of the website* as a learning medium is that it can help students learn independently and actively (Asnawati & Dewi, 2020).

However, in reality, teachers experience problems in using *the website*, including changing teaching material in the form of mathematical *equations* or formulas that cannot be read on a normal *browser page*, complex symbols or formulas cannot be displayed correctly, so that the material created cannot be understood by students. Therefore, requiring the help of *MathJax* to display mathematical symbols or formulas, *MathJax* was developed as a *platform* for mathematics on *websites* that supports all *browsers*, including mobile devices (such as *iPhone* and *Android*). Display results *in browsers* that support using *MathML* and those that don't support using *HTML- with -CSS*, with *MathML* and *TeX formats* (Cervone, 2012). So, with *MathJax* it can make it easier for teachers to display mathematical *equations* and formulas in the teaching materials they create.

Website development is currently still not being carried out optimally in some parts of Indonesia. According to Abdillah et al. (2018), the results of observations and *interviews* in the field stated that *website development* in one of Indonesia's regions could not be put to good use. Even though *the website* functions as a tool to provide learning materials so that students can easily access them. The results of the research by Lu'luilmaknun et al. (2020), stated that only 21% of students often use *websites* (technology) to study mathematics, so it is necessary to develop *a website* on mathematics material.

The results of the research show that website development on quadratic equation material with a level of validity received an average score in the very valid category with a score of 4.50 from media experts, 4.58 from material experts and 4.36 from learning experts, a feasibility level with a score of 4, 34 out of 6 students in the small group test, the level of effectiveness with a score of 95% from 20 students in the large group test, based on these results, website development on quadratic equation material meets the criteria of very valid, very feasible and very effective (Nguru et al., 2020). Therefore, website development research like this can be used as an example or reference for further research.

Some of the studies that have been described provide an overview regarding the development of *website-based media* and student learning interest. However, no research has been found on the development of *website-based media* in mathematics learning to increase student interest in learning. The formulation of the problems that arise in this study is as follows.

a. How is the *website*-based *Faimathematics* development process?
b. How to increase students' interest in learning after participating in learning mathematics using *Faimathematics*?

2. METHOD

This research uses the Research and Development (R&D) development method. According to Sugiyono (2015), R&D is a research method used to produce certain products and test the effectiveness of these products.

The design in this research and development is the ADDIE (Analysis, Design, Development, Implementation and Evaluation) development model. These stages aim to produce a product that is suitable for use in school learning, namely Faimathematics.

The ADDIE model is often used to describe a systematic approach to instructional development. According to Branch (2009), the advantages of the ADDIE model in developing media are one of the most effective tools because this model functions as a guiding framework for complex situations, it is very appropriate to use, especially in developing educational media and other learning resources. The ADDIE model has 5 stages, namely: *Analysis, Design, Development, Implementation, and Evaluation. (1) Analysis,* the analysis stage defines what students will learn. Collect information regarding the learning materials needed to create Faimathematics. *(2) Design,* the stage of creating the media design to be developed. At the design stage, researchers determine the elements that will be included in the learning media. *(3) Development,* this stage is the process of creating Faimathematics designs, researchers continue to create media based on the designs that have been created. *(4) Implementation,* Faimathematics which has been developed and declared worthy of testing by the vaidator, is then tested on students. *(5) Evaluation,* at this stage the test results will be analyzed and evaluated, which will then determine the quality, benefit value and student response to the learning media.

The type of data used is quantitative and qualitative data. Quantitative data was obtained from validation sheets, practicality questionnaires, and learning interest questionnaires, while qualitative data was obtained from interviews. The data sources used in this research were obtained from students, mathematics teachers at the research site and lecturers/validators.

The data in this study were obtained through non-test instruments consisting of validation sheets and interest in learning questionnaires. The following is a validation questionnaire grid for media experts, material experts, pedagogic experts, linguists, and learning interest questionnaires, respectively, which can be seen in **Table 1, Table 2, Table 3, Table 4,** and **Table 5.**

Table 1. Media Expert Validation Questionnaire Grid

No.	Aspect	Indicator
1.	Technical Quality	1. The clarity in using the media
2.		2. *Faimathematics* media convenience
3.		3. Display quality

(Arsyad, 2013) with modifications

Table 2. Material Expert Validation Questionnaire Grid

No.	Aspect	Indicator
1.	Content Quality and Purpose	1. Appropriateness of the material with the content
		2. The accuracy of the material concept
		3. Completeness of the material on the media
2.	Instructional Quality	4. Presentation is given systematically
		5. *Equation* presentation and math symbols

(Arsyad, 2013) with modifications

Table 3. Pedagogic Expert Validation Questionnaire Grid

No.	Aspect	Indicator
1.	Material Presentation	Presentation of teaching materials in the media
2.	Content Eligibility	Conformity with the mental development of students

(Depdiknas, 2008) with modifications

Table 4. Linguist Validation Questionnaire Grid

No.	Aspect	Indicator
1.	Language Eligibility	1. Straightforward language
		2. Understanding of information
		3. Dialogic and interactive
		4. Conformity with the rules of language
		5. Use of symbols and punctuation

(Depdiknas, 2008) with modifications

Table 5. Learning Interest Questionnaire Grid

No.	Indicator	Number
1.	Happy in learning	1
2.	Interest in learning	2
3.	Engagement in learning	3
4.	Diligent in studying	4
5.	Diligently do the task	5
6.	Discipline in learning	6
7.	There is a study schedule	7
Number of items		**7**

3. RESULT AND DISCUSSION

A. *Website*-based *Faimathematics* Development Process

The website which was developed as a medium for learning mathematics is called *Faimathematics*. The development of this media adapts the ADDIE model (*Analysis*, *Design*, *Development*, *Implementation*, *and Evaluation*).

The analysis is carried out by selecting the mathematics material to be taught using the media, this is done so that the material to be taught is by students and school standards. The curriculum used at SMPN 4 Lembang refers to the revised 2013 curriculum. After knowing the applicable curriculum, researchers started to analyze core competencies to be achieved as reference research. Next, the researcher determines the mathematical material that will be used in making learning media, namely discriminant material and types of roots of quadratic equations.

The results of interviews with teachers illustrate that SMPN 4 Lembang students have a high desire to use learning media. The teacher said that students were actively involved when using technology-based media. This can be seen from the results of observations which show students are more enthusiastic when the teacher teaches using *PowerPoint* as a learning medium. Based on the results of the interviews and observations, *the website* developed will be designed with an attractive appearance and easy to understand for its users. Therefore, researchers will utilize the *bootstrap feature* in designing *websites* so that it looks interesting.

Furthermore, making observations by looking at the availability of computer laboratories or other supporting devices, aims to find out their use in learning mathematics. In addition, interviews were conducted with mathematics teachers to obtain information about what aspects should be displayed on *the website* which will be developed. In addition, a match is made between the material and *the website* which will be developed. This analysis was carried out by discussing with supervisors, mathematics teachers, and media experts.

Based on observations made by researchers that there has been use of technology as a medium for learning mathematics. However, this utilization is still dominated by the use of *PowerPoint*. When in class, the teacher still uses *PowerPoint* or conventional media in explaining the material. The results of the interviews show that teachers use *power* more often *point* and conventional books when explaining discriminant material and types of roots of quadratic equations. Related to the research conducted, teachers provide positive support for *website development* as a learning medium. Because *the website* is one of the uses of technology that can facilitate learning because it is flexible to access.

The design of the media that will be developed begins with determining the elements that will be included in the learning media. The researcher made a *Faimathematics design* in the form of an initial design (*Storyboard*, *Flowchart*, Display Design, and *Website Design*). Based on the analysis that has been done, the product design *for Faimahamatics is obtained* which can be seen in **Table 6.**

Table 6. *Faimathematics Design*

No.	Design	Information
1.	*Link Website*	https://persamaankuadrat.000webhostapp.com/
2.	Material	Quadratic Equations (Discriminants and types of roots of quadratic equations)
3.	Language	Indonesia
4.	Menu	a. Home page b. Profile c. Matter (Discriminant and types of roots of quadratic equations) d. About FaiBot e. FaiBot (Interactive Feature) f. Instruction
5.	Function	*Faimathematics* can be a source of learning digitally and can be a medium of learning in class or learning independently

Faimathematics website development uses a device working with Bootstrap v4.6.0 which loads various HTML classes from CSS to make the appearance of the website becomes responsive. Meanwhile, for helps the system in calculating quickly use javascript version ES6 (2015). For writing coding, the application used is Sublime Text version 4143.

The researcher continues to make *Faimathematics* from *the* previous design stage. Not to forget, in the early stages of making *Faimathematics*, researchers consulted supervisors and IT experts for step-by-step revisions and follow-ups. *The Faimathematics* that have been compiled are then reviewed by several validators, namely media experts, material experts, pedagogic experts, and language experts.

Faimathematics has been developed and declared worth testing by the validator and piloted to students at SMPN 4 Lembang. Then the students who followed implementation filled in the questionnaire practical response. it intended Forknow facet practicality from *Faimathematics,* and worth it nope *Faimathematics* in learning mathematics for produced and distributed. *Faimathematics are* tested in two stages, namely small-scale trials and large-scale trials.

After *Faimathematics* finished revised at *the development* stage so *Faimathematics* has considered worthy used in learning math. Furthermore, the researcher carries out a trial scale little done in class IX A at SMPN 4 Lembang with a total of 6 students. Small-scale trials not only collect assessments from students but also collect suggestions for the development of *Faimathematics*. Based on small-scale trials, some students experienced problems so the calculation results did not appear in

Faimathematics. Once identified, such conditions occur due to internet network problems. Researchers make this a note for other researchers who are interested in *website development* as a learning medium, to pay more attention to the internet network.

Faimathematics tested again on students on a larger scale. Large-scale trials use the same indicators as small-scale trials. In a large-scale trial, there were 23 students from class IX B at SMPN 4 Lembang. After learning to finish and test along questionnaire filled in, the researcher then does ask java b on a student scale big about comments or suggestions to use *Faimathematics*. Students so like and give opinions positive as well as good statements to *Faimathematics*. The product end of the research is Decent *Faimathematics* used in the learning process.

From stage trials will obtained assessment and results questionnaire from students who follow implementation. Test results that will be analyzed and evaluated later can is known quality, value benefits, and response students to from *Faimathematics*. Results of analysis, evaluation, and response student This used as a reference need nope stage media revision end. Development process *Faimathematics* is done through some stages namely *Analysis, Design, Development, Implementation,* and *Evaluation*. Fifth stage the passed with Good so that produce Decent *Faimathematics* used in learning math. Following are the results of the validity of the *Faimathematics media website* based can be seen in **Table 7.**

Table 7. Media of Expert Validity Test Results

Aspect	Indicator	Validator 1		Validator 2		Validator 3	
		Value	%	Value	%	Value	%
Engineering Quality	The clarity in using the media	2,62	77,50	2,98	93,96	2,60	72,04
		1,00		2,98		2,60	
	Faimathematics media convenience	2,62		2,98		2,60	
		2,62		2,98		2,60	
	Display Quality	1,00		1,00		1,00	
		1,00		2,98		1,00	
		2,62		2,98		1,00	
		1,00		2,98		1,00	
		2,62		2,98		1,00	
		2,62		2,98		2,60	
		2,62		2,98		2,60	
Overall Percentage (%)		**77,50**		**93,96**		**72,04**	
Criteria		**Valid**		**Very Valid**		**Valid**	

The results of the media validity test showed that the overall value of validator 1 was 77,50% with valid criteria, validator 2 was 93,96% with very valid criteria and validator 3 was 72,04% with valid criteria.

The percentage results obtained in the media validation are presented in the form of a bar chart which can be seen in **Figure 1.**

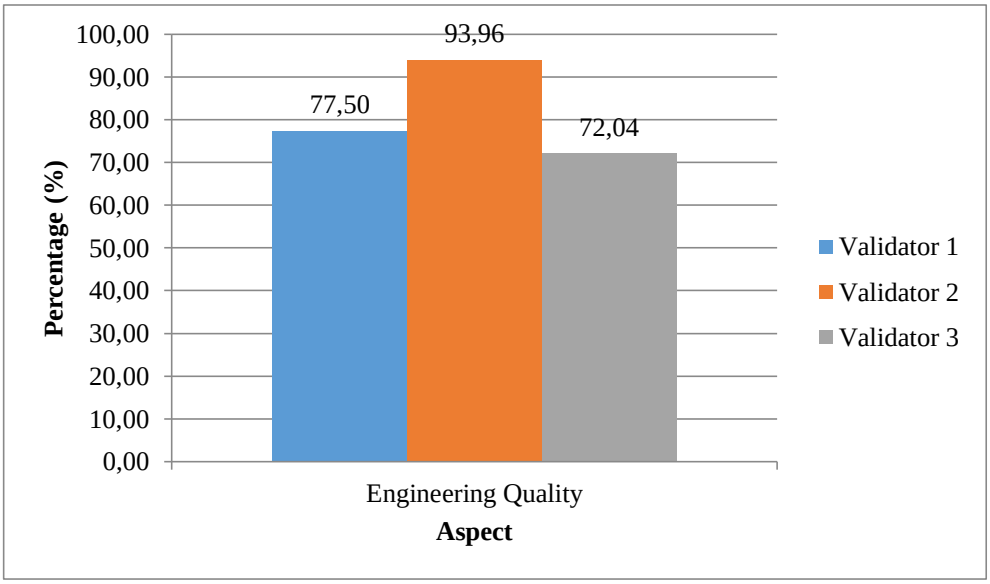

Figure 1. Diagram of Media Expert Validity Test Results

Based on Figure 1 it can be seen that the lowest percentage is 72,04% and the highest percentage is 93,96%. This assessment is used as a reference to be able to improve or revise website-based Faimathematics.

After conducting media validation, 3 validators obtained stated that website-based Faimathematics could be used and fulfilled the media validity requirements with valid criteria from validator 1 and validator 3 very valid from validator 2.

The material contained on the website-based Faimathematics is validated by validator 1 is a Mathematics teacher at SMAN 1 Purwakarta, and validator 2 namely one Mathematics teacher at SMPN 4 Lembang, as a material expert. Following are the results of the validity of the *Faimathematics material website* based can be seen in **Table 8.**

Table 8. Material of Expert Validity Test Results

Aspect	Indicator	Validators 1		Validators 2	
		Value	Percentage (%)	Value	Percentage (%)
Quality content and purpose	Appropriateness of the material with the content	2,92	88,97	2,72	89,45
		2,92		2,72	
		2,92		2,72	
	The accuracy of the material concept	2,92		2,72	
	Completeness of the material on the media	1,00		1,00	
		2,92		2,72	
Quality Instructional	Presentation is given systematically	2,92	100,00	1,00	78,91
	Equation presentation and math symbols	2,92		2,72	
		2,92		2,72	
Overall Percentage (%)		**94,49**		**84,18**	
Criteria		**Very Valid**		**Valid**	

The results of the material validity test obtained the overall value of validator 1 which was 94,49% with very valid criteria and validator 2 which was 84,18% with valid criteria

The percentage results obtained in the material validation are presented in the form of a bar chart which can be seen in **Figure 2.**

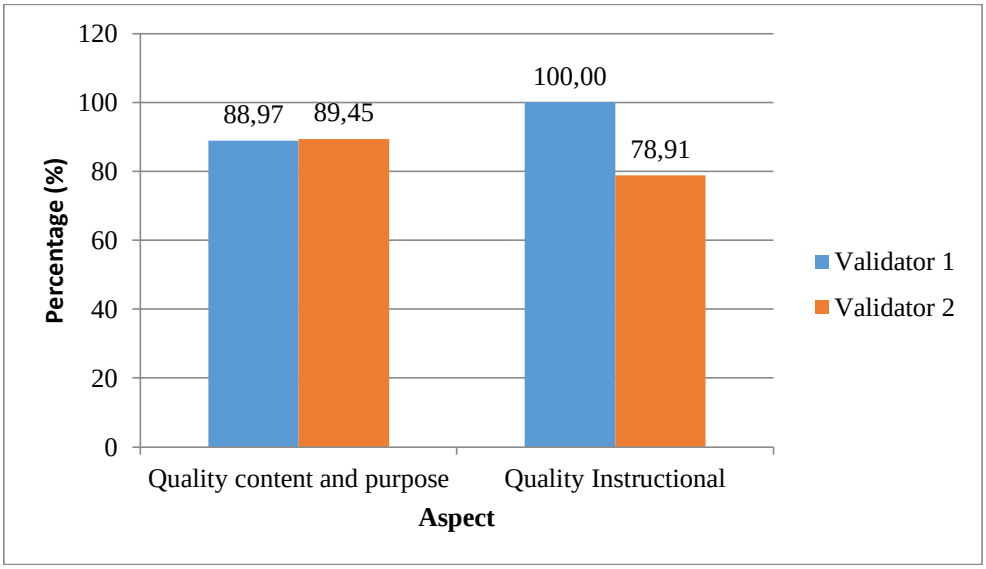

Figure 2. Diagram of Material Expert Validity Test Results

Based on **Figure 2.** it can be seen that the lowest and highest percentages are in the aspect of instructional quality with the lowest percentage being 78.91% and the highest percentage being 100%. This assessment is used as a reference to be able to improve or revise website-based Faimathematics.

After conducting material validation, two validators obtained stated that website-based Faimathematics could be used and fulfilled the material validity requirements with very valid criteria from validator 1 and validator 2.

The pedagogical elements contained in website-based Faimathematics were validated by validator 1, namely a Mathematics teacher at SMAN 1 Purwakarta, and validator 2, namely a Mathematics teacher at SMPN 4 Lembang, as a pedagogical expert. Following are the results of the pedagogic validity *Faimathematics website* based can be seen in **Table 9.**

Table 9. Pedagogic of Expert Validity Test Results

Aspect	Indicator	Validators 1		Validators 2	
		Value	Percentage (%)	Value	Percentage (%)
Presentation Material	Presentation of teaching materials in the media	2,66	84,41	2,75	84,09
		2,66		2,75	
		2,66		1,00	
		1,00		1,00	
		2,66		2,75	
		2,66		2,75	
		2,66		2,75	
		1,00		2,75	
Appropriateness content	Conformity with the mental	1,00	68,83	2,75	100,00
		2,66		2,75	

Aspect	Indicator	Validators 1		Validators 2	
		Value	Percentage (%)	Value	Percentage (%)
	development of students				
Overall Percentage (%)		**76,62**		**92,05**	
criteria		**Valid**		**Very Valid**	

Pedagogic validity test obtained the overall value of validator 1 which was 76,62% with valid criteria and validator 2 which was 92,05% with very valid criteria.

The percentage results obtained in pedagogic validation are presented in the form of a bar chart which can be seen in **Figure 3.**

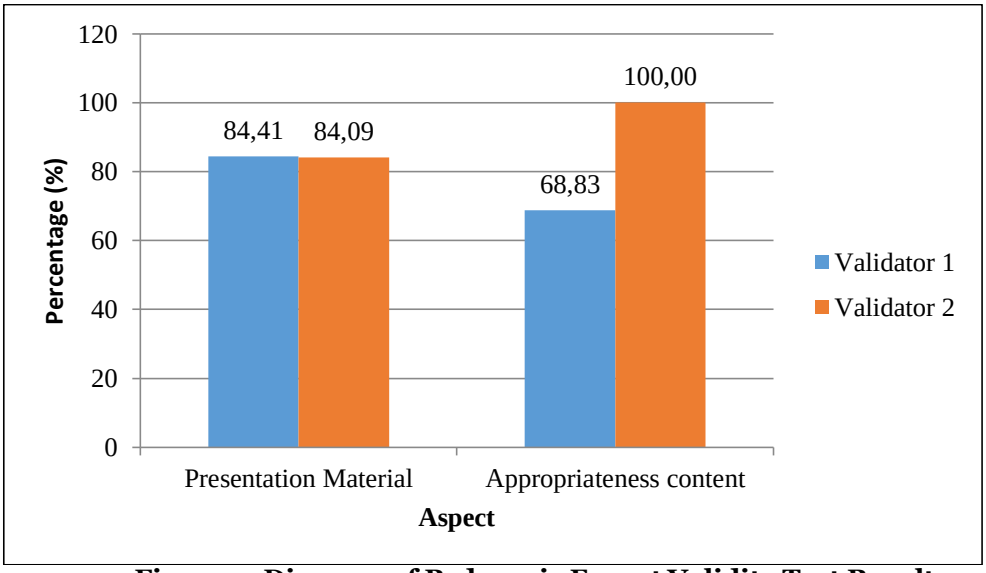

Figure 3. Diagram of Pedagogic Expert Validity Test Results

Based on **Figure 3.** it can be seen that the lowest and highest percentages are in the content feasibility aspect with respective percentages of 68,823% and 100%. This assessment is used as a reference to be able to improve or revise website-based Faimathematics.

After carrying out pedagogic validation, two validators obtained stated that website-based Faimathematics could be used and fulfilled the pedagogical validity requirements with valid criteria from validator 1 and very valid from validator 2.

The use of language contained in website-based Faimathematics was validated by validator 1, namely an Indonesian language teacher at SMAN 1 Purwakarta and validator 2, namely an Indonesian language teacher at SMAN 1 Wanayasa, as a language expert. Following are the results of the validity of the *Faimathematics language website* based can be seen in **Table 10.**

Table 10. Linguist of Validity Test Results

Aspect	Indicator	Validators 1		Validators 2	
		Value	Percentage (%)	Value	Percentage (%)
Language Eligibility	Straightforward language	1,00	82,92	2,62	77,50
		2,68		2,62	
		2,68		2,62	

Aspect	Indicator	Validators 1		Validators 2	
		Value	Percentage (%)	Value	Percentage (%)
	Understanding of information	2,68		2,68	
	Dialogic and interactive	2,68		1,00	
		2,68		2,62	
	Conformity with the rules of language	2,68		1,00	
		1,00		2,62	
		2,68		2,62	
	Use of symbols and punctuation	2,68		1,00	
		1,00		1,00	
Overall Percentage (%)		**82,92**		**77,50**	
criteria		**Valid**		**Valid**	

The results of the language validity test obtained the overall value of validator 1 which was 92,92% with valid criteria and validator 2 which was 77,50% with valid criteria.

The percentage results obtained in the language validation are presented in the form of a bar chart which can be seen in **Figure 4.**

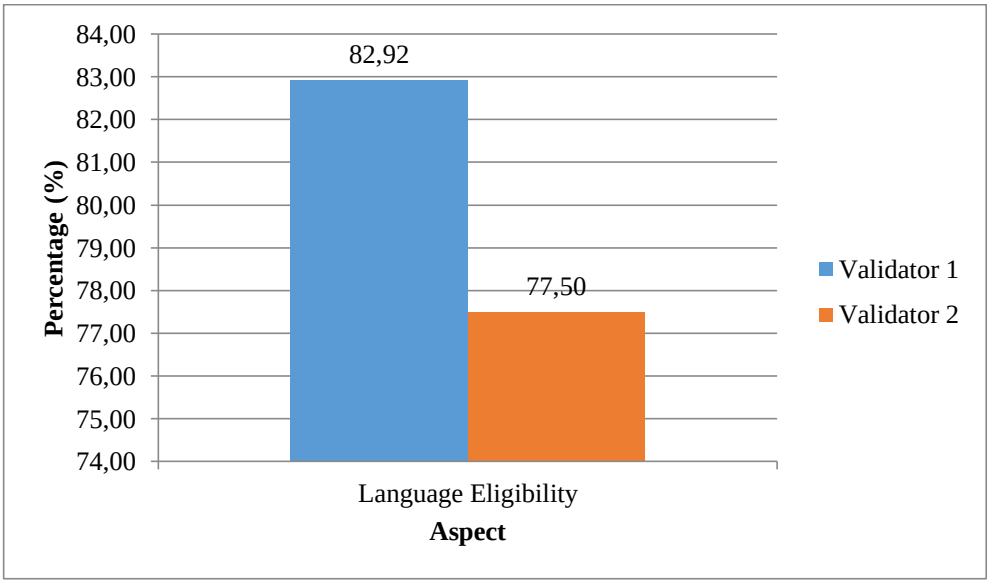

Figure 4. Diagram of Language Expert Validity Test Results

Based on **Figure 4.** It can be seen that the lowest percentage is 77,50% and the highest percentage is 82,92%. This assessment is used as a reference to be able to improve or revise website-based Faimathematics.

After performing language validation, two validators obtained stated that website-based Faimathematics could be used and fulfilled the language validity requirements with valid criteria from validator 1 and valid criteria from validator 2.

Practicality Test *Faimathematics website* based consists of small-scale and large-scale practicality tests. The results obtained from the practicality test are as follows.

The results obtained from the practicality questionnaire which were filled out by 6 class IX A students at SMPN 4 Lembang can be seen in **Table 11.**

Table 11. Small Scale Practicality Test Results

No.	Aspect	Indicator	Percentage (%)	Criteria
1.	Media interest	1. Interesting media display	74,14	Practical
		2. Learning media motivate learning mathematics		
		3. Learning media influence the interest in learning		
2.	Material	4. Encouraging students to develop knowledge and skills through learning media	70,82	Practical
		5. The material presented in the media is easy to understand		
3.	Language	6. Sentences are clear and easy to understand	79,28	Practical
		7. The language used is simple and easy to understand		
		8. The letters used are simple and easy to read		
Overall Presentation (%)			**74,74**	**Practical**

Based on **Table 11,** the results of the practicality test were obtained from 6 class IX A students at SMPN 4 Lembang which consisted of 8 statements, namely 74,74%, meaning *Faimathematics website* based classified as very practical to use in learning.

The results obtained from the practicality questionnaire which were filled in by 23 class IX B students of SMPN 4 Lembang can be seen in **Table 12.**

Table 12. Large-Scale Practicality Test Results

No.	Aspect	Indicator	Percentage (%)	Criteria
1.	Media interest	1. Interesting media display	74,60	Practical
		2. Learning media motivate learning mathematics		
		3. Learning media influence the interest in learning		
2.	Material	4. Encouraging students to develop knowledge and skills through learning media	71,22	Practical
		5. The material presented in the media is easy to understand		
3.	Language	6. Sentences are clear and easy to understand	70,73	Practical
		7. The language used is simple and easy to understand		
		8. The letters used are simple and easy to read		
Overall Percentage (%)			**72,18**	**Practical**

Based on **Table 12,** the results of the practicality test were obtained from 23 class IX B students of SMPN 4 Lembang which consisted of 8 statements, namely 72,18%, meaning *Faimtahematics website* based relatively practical to use in learning.

The results obtained from the practicality questionnaire filled out by a Class IX Mathematics teacher at SMPN 4 Lembang can be seen in **Table 13.**

Table 13. Practicality Test Results by Teachers

No.	Aspect	Indicator	Percentage (%)	Criteria
1.	Instructional Media	1. Media can increase student motivation	100	Very Practical
		2. Media can add to the knowledge of students		
2.	Fill	3. The material presented in the media is in accordance with KD, indicators and objectives	100	Very Practical
3.	language	4. The language used is easy to understand	100	Very Practical
4.	Appearance Motivation	5. Design attractiveness	100	Very Practical
		6. Correct font and size		
		7. The display image is in accordance with the learning material		
Overall Percentage (%)			**100**	**Very Practical**

Based on **Table 13,** the results of the practicality test were obtained from a class IX Mathematics Teacher at SMPN 4 Lembang which consisted of 7 statements, namely 100% meaning *Faimtahematics website* based classified as very practical to use in learning.

B. Increased student interest in learning after participating in mathematics learning using *Faimathematics*

The n-gain data is data used by researchers to determine the increase in students' learning interest using website-based Faimathematics. Statistical data of n-gain students showing that the average n-gain interest in learning of students who received learning using the website-based Faimathematics can be seen in **Table 11.**

Table 11. Data n -gain Learning Interest of Students Using Website-based Faimathematics

No.	Student Code	*Pretest*	*Posttest*	n-gain	Category
1	B-1	32	51	0.50	Medium
2	B-2	33	51	0.49	Medium
3	B-3	31	46	0.38	Medium
4	B-4	41	62	0.72	High
5	B-5	31	51	0.51	Medium
6	B-6	29	47	0.44	Medium
7	B-7	33	42	0.24	Low
8	B-8	34	53	0.53	Medium
9	B-9	28	44	0.38	Medium
10	B-10	43	65	0.81	High
11	B-11	34	44	0.28	Low
12	B-12	26	41	0.34	Medium
13	B-13	19	41	0.43	Medium
14	B-14	27	42	0.35	Medium
15	B-15	33	48	0.41	Medium

No.	Student Code	*Pretest*	*Posttest*	n-gain	Category
16	B-16	34	59	0.69	Medium
17	B-17	33	58	0.68	Medium
18	B-18	29	49	0.49	Medium
19	B-19	26	41	0.34	Medium
20	B-20	35	47	0.34	Medium
21	B-21	34	46	0.33	Medium
22	B-22	28	44	0.38	Medium
23	B-23	31	54	0.59	Medium
Average				**0.464**	**Medium**

Based on **Table 11** classes using the *Faimathematics website* based each student experienced an increase in student learning interest and did not decrease. There were 2 students in the low category with a percentage of 8.696%, in the medium category there were 19 students with a percentage of 82.609% and in the high category, there were 2 students with a percentage of 8.696%.

4. CONCLUSION

Website-based *Faimathematics* development process using the ADDIE model is carried out through five stages, namely *Analysis, Design, Development, Implementation,* and *Evaluation*. These five stages were well managed to produce a product that is suitable for use in teaching mathematics at schools, namely *website*-based *Faimathematics*.

The Faimathematics Validity *website*-based has fulfilled the requirements for the development of learning media. The validity of media experts with valid criteria, the validity of material experts with very valid criteria, the validity of pedagogic experts with valid criteria, and the validity of linguists with valid criteria.

The practicality of *website*-based *Faimathematics has fulfilled the requirements for the development of learning media, namely, the results of* practicality tests by students in small-scale trials got very practical results, the results of practicality tests by students in large-scale trials got practical results, and the results of practicality tests by teachers got practical results.

Increased student interest in learning after participating in mathematics learning using *Faimathematics* included in the medium category.

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