



## DEVELOPING WORDWALL-BASED LEARNING MEDIA FOR ONLINE BUSINESS SUBJECTS FOR ELEVENTH GRADE STUDENTS AT SMKN 1 SOOKO MOJOKERTO

Ananda Octavia Ningrum<sup>a1</sup>, Raya Sulistyowati<sup>a</sup>

<sup>a</sup>Universitas Negeri Surabaya, Surabaya, Indonesia

<sup>b</sup>Universitas Negeri Surabaya, Surabaya, Indonesia

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### ABSTRACT

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*This study aims to develop Wordwall-based learning media for Online Business subjects for Eleventh-grade students at SMKN 1 Sooko Mojokerto. This study used ADDIE development model, which includes the stages of Analysis, Design, Development, Implementation, and Evaluation. The subjects of this study were 34 students from the eleventh Online Business and Marketing class at SMKN 1 Sooko Mojokerto. Validation was conducted by three experts: a linguist, a media expert, and a material expert. The validation results showed that the Wordwall-based learning media is highly feasible, with language validation at 82%, media validation at 98%, and material validation at 100%. Therefore, this Wordwall-based learning media is highly suitable for Online Business learning at SMKN 1 Sooko Mojokerto.*

## INTRODUCTION

Education is fundamental to the development of high-quality Human Resources (HR), particularly in science and technology. Education plays an important role in improving the quality of human resources (Mukrimatin et al., 2018). Education gets more attention to improve an individual's quality and a compulsory need for all humans because it is essential and inseparable from life. Education serves as a fundamental guide for the continuity of life. To improve human resources, it is essential to enhance classroom learning and leverage technology to support and elevate the quality of education.

As technology develops, teachers are expected to design more interactive and creative learning experiences that motivate students in both independent and classroom learning (Bahtiar & Sulistyowati, 2019). Improvements and changes are needed in education, including educators and the learning media used. Each individual must master technology to stay competitive. Technology significantly impacts education by providing convenience, openness, and freedom, including the ease of obtaining information (Heryani et al., 2022). These changes are expected to support student development and prepare them for future demands. Technology can function as a supportive tool in learning, with teachers utilizing various digital media such as computers, laptops, and smartphones to create a dynamic and diverse teaching environment. This effort makes the classroom learning process more engaging (Ridha Yoni Astika et al., 2020).

Vocational High School (VHS) is an educational level designed to prepare students for the workforce which provide practical knowledge and skills for entering the workforce and further education (Wulandari & Sulistyowati, 2022). Therefore, the government aims to improve vocational education

<sup>1</sup>Ananda Octavia Ningrum, S1 Education Bussiness, Faculty of Economic and Bussiness, State University of Surabaya, Surabaya, Indonesia. Email: [anandaoctavia.20049@mhs.unesa.ac.id](mailto:anandaoctavia.20049@mhs.unesa.ac.id)



quality by changing some private vocational high school into State Vocational High Schools. This transformation aims to enhance educational quality and facilities. SMKN 1 Sooko, an A-accredited State Vocational High School in Mojokerto, is ISO 9001:2008 certified. The 2013 curriculum, revised in 2017, is implemented for grades XI and XII, while grade X follows the Merdeka Curriculum. The school offers a major in Online Business and Marketing.

The online Business and Marketing program at Vocational High School includes subjects such as Online Business, allowing students to learn offline and online marketing (Erfianto et al., 2015). Online business subjects are highly relevant to current technological developments, requiring students to keep up with the times. Providing online business subjects to students can be used as knowledge and skills for students to be implemented in the business world by utilizing smartphones owned by students. In addition, Online business learning encourages student creativity and innovation in business, providing practical knowledge for operating in a digital business environment

Based on the results obtained from observations at SMKN 1 Sooko Mojokerto, learning activities in Online Business subjects align with curriculum standards. However, students often find the learning process monotonous, primarily relying on blackboard teaching and lectures. This traditional method limits student engagement and activity. This research proposes developing website-based teaching materials using Wordwall to improve online business learning.

Modern learning extends beyond books to digital platforms such as websites and blogs, accessible via laptops or smartphones. In addition, in the digital world, education also utilizes games. Websites are advertising media and educational resources that all groups can use. The school has also facilitated WiFi for all students, which can be utilized as internet-based learning support. With this facility, students are expected to easily search for extensive information not found in books.

Learning media play a crucial role in supporting learning activities. Wordwall, a media tool, offers free services to users by registering with a personal email. It provides various themes, enabling users to customize their experience. Learning media development aims to enhance student enthusiasm and participation, creating a new learning atmosphere and facilitating material mastery.

A successful teaching and learning process requires a combination of several components so that a system is formed that has a relationship and can influence the components between one another. These components include: goals, materials, learning media, evaluation and methods (Aeni et al., 2022). In order for students to be interested during the learning process, the solution to the problem is obtained, one of which is learning using a web-based game, namely Wordwall. Therefore, Wordwall is an effective choice as a learning media implemented for the teaching and learning process in the classroom (Purnamasari et al., 2020).

## LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### Learning Media

Learning media has two syllables "media" and "learning". In terms of language, the word media is *medius*, which means intermediary. In English the word "media" is plural, namely "medium", meaning intermediary. In Arabic "media" is "wasa'il" which means means or message intermediary. Learning media includes all elements that are used to transmit messages from senders to recipients to arouse thoughts, attracting attention, arousing interest, and motivating students, thus learning takes place efficiently to obtain the expected learning objectives (Prayoga, 2018). Learning media is a tool used in learning activities to communicate several messages clearly so that learning objectives can be achieved. (Kustandi, & Darmawan, 2020: 6). Therefore, learning media serves as a tool for teachers to communicate material and as a reference for students, fostering interest, attention, and effective learning activities.

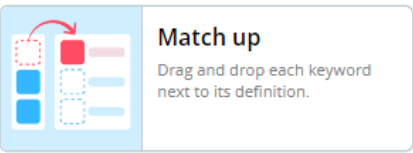
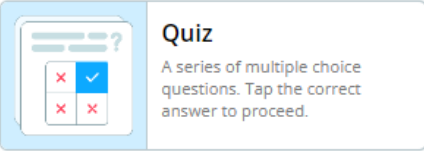
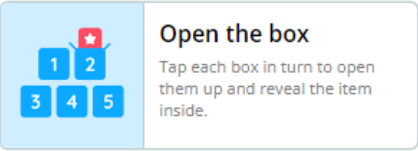
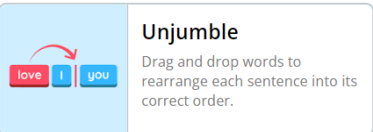
### Wordwall

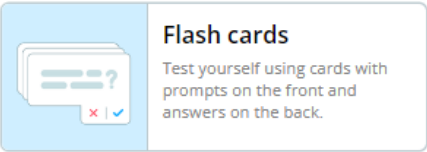
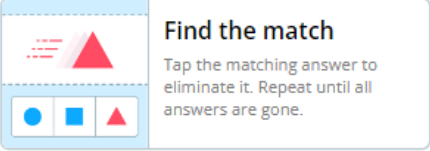
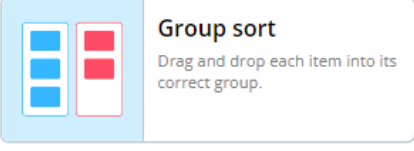
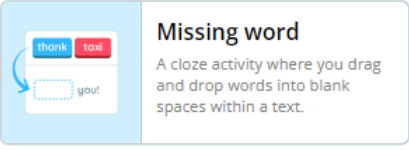
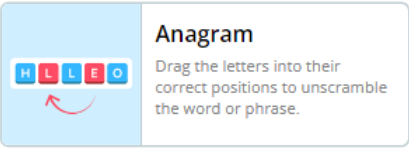
Wordwall is a website that offers various educational games to support tools and assessment evaluation tools that make students happy (Nisa & Susanto, 2022). This educational game offers a variety of

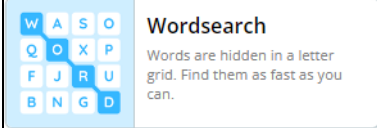
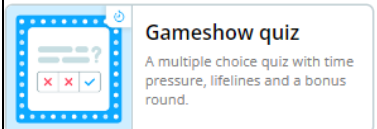
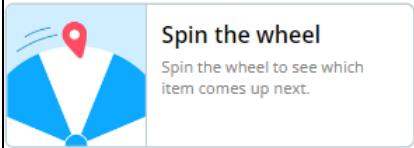
features with a combination of images that can move, color, and sound so that its users can utilize it. Wordwall is a media that users can access for free (Lana Fauziah, Junarti, 2023). Teachers can use this as a means to evaluate the understanding of material that has been conveyed to students. Learning media that can improve students' understanding of material is Wordwall (Sartika, 2017).

Wordwall is a web-based application with various themes and attractive displays (Billah et al., 2023). From the explanation of this definition, the conclusion is that Wordwall is a website that can be used as a learning media with various features themes and can be easily accessed for free by its users. In the Wordwall application there are various kinds of templates including the following:

Table 1.  
 Wordwall template

No.	Image	Description
1.		Match Up is feature where users can answer questions by matching answers to questions.
2.		Quiz is the feature where provide questions that user choose the correct answer from multiple choices
3.		Open the box is where user must click on boxes to answer questions inside.
4.		Unjumble is feature is where Users sort random words into correct sentences.

5.	 <p><b>Flash cards</b>          Test yourself using cards with prompts on the front and answers on the back.</p>	Flash Cards is the feature where users use flashcards to remember and understand words.
6.	 <p><b>Find the match</b>          Tap the matching answer to eliminate it. Repeat until all answers are gone.</p>	Find the match is the feature asks where users tap the correct answer among random answers
7.	 <p><b>Group sort</b>          Drag and drop each item into its correct group.</p>	Group sort is the feature where users are asked to select answers to questions by dragging each answer to the correct group.
8.	 <p><b>Missing word</b>          A cloze activity where you drag and drop words into blank spaces within a text.</p>	Missing Word is the feature where the user drag the missing word into the blank space
9.	 <p><b>Anagram</b>          Drag the letters into their correct positions to unscramble the word or phrase.</p>	Anagrams is the feature where the user is asked to arrange letters to form correct words.
10.		Wordsearch is feature where users find words hidden in a letter grid within a time limit. It can be vertical, horizontal, or minimized.

		
11.		Gameshow quiz is the feature where users answer multiple-choice questions with time limits, lifelines, and bonus rounds.
12.		Spin wheel is feature where users answer questions selected by a spinning wheel.

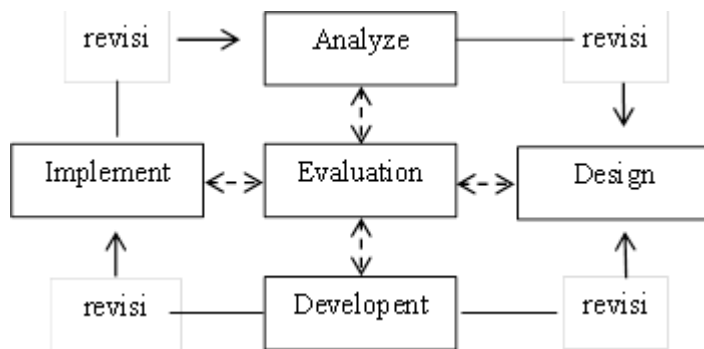
Source: Processed by Researchers (2024)

### Online Business

Online Business is a new subject in the 2013 curriculum, revised in 2017, for grade XI students majoring in Online Business and Marketing (Risqi & Saino, 2020). In the 2013 curriculum, it is stipulated that the Online Business subject for SMK subjects in the marketing expertise competency starts from eleventh grade to provide insight and developing students' skills in online business (Chabib, Moch Happy Shahrul & Sulistyowati, 2021). Online Business subjects are part of the 2013 curriculum for Vocational High Schools, which aims to provide students with a basic understanding of marketing techniques and strategies carried out through online platforms (Erfianto et al., 2015). So it can be concluded that Online Business subjects are productive subjects that aim to provide specific abilities for students in accordance with the skill program. The Online Business subject itself is a subject that studies marketing carried out using digital or online marketing

### METHOD

This study used research and development (R&D) to produce and test the feasibility of the products (Sugiyono, 2017). The ADDIE model consisted of Analysis, Design, Development, Implementation, Evaluation. The ADDIE model is a Design model with a learning system that has several core steps that are easy to implement (Cahyadi, 2019). The following is an image that shows part of the ADDIE development model.



Source: Sugiyono (2017: 38)

Figure 1 ADDIE Research Stage

The trial involved 34 students from SMKN 1 Sooko. Data collection methods included questionnaires, interviews, observations, tests, and document analysis (Sudaryono, 2013: 29). Data were collected using interviews, expert validation, and student response sheets. Data was obtained from the validation of several experts, including material validation, language validation, media validation and student response sheets. The results of expert validation and the results of student response sheets will be calculated with the following formulation:

$$\text{feasibility percentage} = \frac{\text{sum of all validators' scores}}{\text{highest score}} \times 100\%$$

Source: (Riduwan, 2016)

The percentage results from several experts were interpreted according to the eligibility score criteria listed in the table below.

Table 2.  
**Expert Validation Criteria**

Assessment	Criteria
81%-100%	Very strong
61%-80%	Strong
41%-60%	Simply
21%-40%	Weak
0%-20%	Very weak

Source: (Riduwan, 2015)

The following are the percentage results interpreted from students on learning media:

Table 3.

**Student Response Sheet Criteria**

Assessment	Criteria
>85%	Very positive
70%<x≤85%	Positive
50%<x≤70%	Less positive
<50%	Not positive

Source: (Aisyah & Marlina, R, 2016)

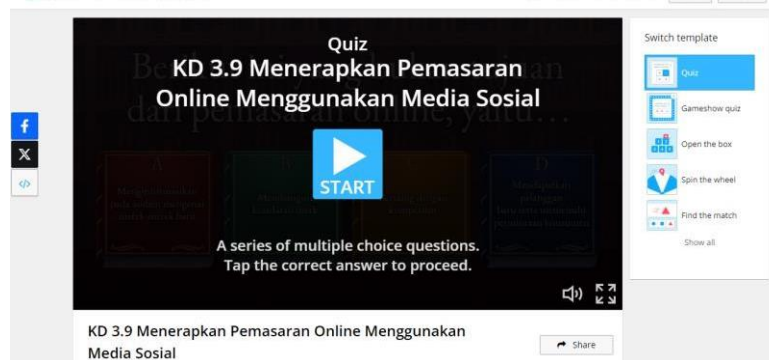
## RESULTS AND DISCUSSIONS

The results of wordwall-based learning media development research are in the form of discussions related to the process of developing learning media, the feasibility of learning media, and student response sheets.

### **The Development Process of Wordwall-based Learning Media for Online Business Subjects for Eleventh-grade Students at SMKN 1 Sooko Mojokerto.**

At the analysis stage, the steps included needs analysis, which revealed that students often became bored and distracted by using smartphones or sleeping due to unengaging learning media. The next analysis, namely, the analysis of learners involved 34 students in class XI Online Business and Marketing with 31 female students and 3 male students. The last analysis is concept analysis, concept analysis is applied by planning the description of the learning media along with the material that is then displayed. The preparation of the concept of wordwall-based media development is adjusted based on the syllabus of online business subjects. The concept of material adapted based on the syllabus of online business subjects refers to KD 3.9 on applying online marketing using social media.

In the design stage, material development focused on KD 3.9, utilizing the quiz feature on the Wordwall website. The initial design was validated by media, material, and language experts to ensure quality before finalizing the product. In the design stage, material development focused on KD 3.9, utilizing the quiz feature on the Wordwall website. The media that has been determined in this study is wordwall-based learning media. The selected feature of the wordwall web is the quiz feature.



Source: Processed by Researcher  
Figure 1. Wordwall home screen

In development stage, the designed learning media were validated by expert validation namely media experts, material experts, and linguists. The validity aims to improve the media so that it can become a product per the final design. Validation is carried out by several experts including material validation, language validation, and media validation.

In the implementation stage, learning media has gone through the stages of validation and revision by experts. Furthermore, it will be tested on students of class XI Online Business and Marketing of SMKN 1 Sooko Mojokerto, with 34 students. Students will be directed to access the link that the researcher shared.

The final development stage is the evaluation stage, where students as test subjects will be directed to complete a questionnaire. The questionnaire aims to find out the students' responses after using wordwall-based learning media.

### Feasibility of Wordwall-based Learning Media Development for Online Business Subjects for XI Students of SMKN 1 Sooko Mojokerto.

The feasibility of learning media is obtained from the validation results of several experts. The validation sheet is done with an assessment on the list of questions available. The validation was carried out by lecturers of Indonesian Language and Literature Education from the Faculty of Language and Arts, Universitas Negeri Surabaya, material validation was carried out by lecturers of Business Education, Faculty of Economics and Business, Universitas Negeri Surabaya, and media validation was carried out by lecturers of Educational Technology, Faculty of Engineering, Universitas Negeri Surabaya. the results of the feasibility of expert validation are listed in the table below.

Table 3.

**Expert Validation Results**

Validation	Percentage	Criteria
Material validation	100%	Very Strong
Language validation	82%	Very Strong
Media validation	98%	Very Strong

Source: processed by researchers (2024)

### Response of Online Business and Marketing XI Students to Learning Media Based on Wordwall in Online Business Subject

Wordwall-based learning media validated by several experts have been tested on 34 students of Online Business and Marketing program of eleventh class at SMKN 1 Sooko Mojokerto for 20 minutes. The following are the results of the recapitulation of student response sheets.

Table 4.

**Results of Student Response Sheet Recapitulation**

No.	Criteria	Highest score	Total score	
			Yes (1)	No (0)
1.	Quality of content and purpose	17	478	100
2.	Qualification Instructional			
3.	Quality technical			

Source: processed by researchers (2024)

The overall calculation results from the formula show that the assessment of student responses from the criteria in the table above for Wordwall-based learning media get a percentage of 82.6%.. The percentage of 82.6% is included in the positive interpretation. Thus, it is concluded that the student response to learning media is positively used in learning activities.

### CONCLUSION

The feasibility of developing Wordwall-based learning media was determined through expert validation and categorized as very feasible. Therefore, learning media that the validator has assessed is feasible to be applied to learning media. The results of student responses to learning media are obtained from the results of student response questionnaires. The trial was conducted on 34 class XI BDP 2 SMKN 1 Sooko Mojokerto students. The results of student responses are included in the positive interpretation. Therefore, it can be concluded that the students' response to the wordwall-based learning media for Online Business subjects is positive, and can be effectively used in teaching this subject to XI students at SMKN 1 Sooko Mojokerto.



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## REFERENCES

- Aeni, A. N., Djuanda, D., Maulana, M., Nursaadah, R., & Sopian, S. B. P. (2022). Pengembangan Aplikasi Games Edukatif Wordwall Sebagai Media Pembelajaran Untuk Memahami Mater Pendidikan Agama Islam Bagi Siswa Sd. *Primary: Jurnal Pendidikan Guru Sekolah Dasar*, 11(6), 1835. <https://doi.org/10.33578/jpkip.v11i6.9313>
- Bahtiar, A., & Sulistyowati, R. (2019). Pengembangan Media Pembelajaran Crossword Puzzle Digital Kompetensi Dasar Menjelaskan Konsep Pemasaran Online Kelas XI Bisnis Daring dan Pemasaran SMK Negeri 4 Surabaya. *Jurnal Pendidikan Tata Niaga (JPTN)*, 7(3), 618–624.
- Billah, C. M., Suwarjo, S., & Prasetiawan, H. (2023). *Development of the Wordwall to Enhance Students' Healthy Life Awareness* (Vol. 1). Atlantis Press SARL. [https://doi.org/10.2991/978-2-38476-034-3\\_24](https://doi.org/10.2991/978-2-38476-034-3_24)
- Cahyadi, R. A. H. (2019). Pengembangan Bahan Ajar Berbasis Addie Model. *Halaqa: Islamic Education Journal*, 3(1), 35–42. <https://doi.org/10.21070/halaqa.v3i1.2124>
- Chabib, Moch Happy Shahrul & Sulistyowati, R. (2021). Pengaruh Mata Pelajaran Bisnis Online, Penggunaan Smartphone, dan Pemanfaatan Media Sosial Terhadap Minat Berwirusaha Siswa Kelas XII BDP di SMK Negeri 1 Surabaya. *Jurnal Pendidikan Tata Niaga (JPTN)*, 9(2), 1209–1215. <https://jurnalmahasiswa.unesa.ac.id>
- Erfianto, D., Rahayu, W., & Kusumajanto, D. (2015). Penerapan Blog Sebagai Media Pembelajaran Mata Pelajaran Online. *Jurnal Pendidikan Bisnis Dan Manajemen*, 1(235), 245. [http://digilib.unila.ac.id/4949/15/BAB II.pdf](http://digilib.unila.ac.id/4949/15/BAB%20II.pdf)
- Heryani, A., Pebriyanti, N., Rustini, T., & Wahyuningsih, Y. (2022). Peran Media Pembelajaran Berbasis Teknologi Dalam Meningkatkan Literasi Digital Pada Pembelajaran Ips Di Sd Kelas Tinggi. *Jurnal Pendidikan*, 31(1), 17. <https://doi.org/10.32585/jp.v31i1.1977>
- Lana Fauziah, Junarti, F. Z. (2023). *Jurnal Pendidikan : Seroja*. *Seroja*, 2(3), 86–97.
- Mukrimatin, N. A., Murtono, M., & Wanabuliandari, S. (2018). Pemahaman Konsep Matematika Siswa Kelas V SD Negeri Rau Kedung Jepara Pada Materi Perkalian Pecahan. *ANARGYA: Jurnal Ilmiah Pendidikan Matematika*, 1(1), 67–71. <https://doi.org/10.24176/anargya.v1i1.2277>
- Nisa, M. A., & Susanto, R. (2022). Pengaruh Penggunaan Game Edukasi Berbasis Wordwall Dalam Pembelajaran Matematika Terhadap Motivasi Belajar. *JPGI (Jurnal Penelitian Guru Indonesia)*, 7(1), 140. <https://doi.org/10.29210/022035jpgi0005>
- Prayoga, D. A. (2018). Media Pembelajaran Mengenal Jenis Batuan Berbasis Augmented Reality Pada Perangkat Android. *J I M P - Jurnal Informatika Merdeka Pasuruan*, 3(3), 64–73. <https://doi.org/10.37438/jimp.v3i3.190>
- Purnamasari, S., Rahmanita, F., Soffiatun, S., Kurniawan, W., & Afriliani, F. (2020). Bermain Bersama Pengetahuan Peserta Didik Melalui Media Pembelajaran Berbasis Game Online Word Wall. *Jurnal Pengabdian Kepada Masyarakat*, 1(1), 177–180.
- Resa, M. F., & Nopiyad, D. (2022). Pengembangan Media Evaluasi Pembelajaran berbasis Game Edukasi Wordwall pada Mata Kuliah Jarigan Komputer. *Jurnal Pendidikan Dan Konseling*, 4(4), 5459–5467.

- Ridha Yoni Astika, Bambang Sri Anggoro, & Siska Andriani. (2020). Pengembangan Video Media Pembelajaran Matematika Dengan Bantuan Powtoon. *Jurnal Pemikiran Dan Penelitian Pendidikan Matematika (JP3M)*, 2(2), 85–96. <https://doi.org/10.36765/jp3m.v2i2.29>
- Risqi, A., & Saino. (2020). Pengembangan media pembelajaran berbasis digital pada mata pelajaran bisnis online kelas XI bisnis daring dan pemasaran SMKN 10 Surabaya. *Jurnal Pendidikan Tata Niaga (JPTN)*, 8(1), 757–763. <https://jurnalmahasiswa.unesa.ac.id/index.php/jptn/article/view/34990>
- Sartika, R. (2017). Implementing Word Wall Strategy in Teaching Writing Descriptive Text for Junior High School Students. *Journal of English and Education*, 5(2), 179–186.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. CV. ALFABETA.
- Wulandari, C. Y., & Sulistyowati, R. (2022). Pengembangan E-Modul Interaktif Berbasis Flip Pdf Professional Mata Pelajaran Produk Kreatif dan Kewirausahaan di Sekolah Menengah Kejuruan. *Edukatif: Jurnal Ilmu Pendidikan*, 4(3), 4882–4889. <https://doi.org/10.31004/edukatif.v4i3.3027>

#### INFORMATION ABOUT THE AUTHORS

**Ananda Octavia Ningrum1** : (Universitas Negeri Surabaya, Surabaya, Indonesia, [anandaoctavia.20049@mhs.unesa.ac.id](mailto:anandaoctavia.20049@mhs.unesa.ac.id))

**Raya Sulistyowati2** : (Universitas Negeri Surabaya, Surabaya, Indonesia, [rayasulistyowati@unesa.ac.id](mailto:rayasulistyowati@unesa.ac.id), <https://orcid.org/0000-0003-2715-1469>, 57201351523)