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Office Administration Simulation Media to Support Students Skill in the Freedom Curriculum

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Abstract: This study aims to develop a learning media called Stelar for practical activities to digital manage archives and create digital letters. The learning media can be accessed by three students who act as leaders, secretaries and archivists. In addition, this learning media is also designed to be monitored by the teacher. Thus, the teacher can provide an assessment in the form of numbers and important notes on the work of students. The type of this research was Research and Development using the ADDIE model, namely Analyze, Design, Development, Implementation, Evaluation. Based on the results of the application of learning media to 99 students to work on administrative activities using Stelar media, an average score of 88.5% was obtained. In addition, based on filling out a learner questionnaire to determine the effectiveness of learning media, a score of 90% was obtained. Thus, it can be concluded that the Stelar instructional media can be well accepted and is suitable for use in the learning process of Office Administration students in Indonesia.

Keywords: Stelar, Office administration, Learning media, ADDIE

INTRODUCTION

The advancement of science and technology has altered many facets of human life, including the political, economic, industrial, cultural, and educational spheres (Fajar et al., 2018; Kurniawan et al., 2022; Mazya et al., 2023). Consequently, actors who only focus on the old method will be easily displaced and lost in this era of disruption. This era creates a competitive movement in the global community's life order (Lamuri & Laki, 2022; Lasmawan, 2019). This is due to the implementation of digital technology and ongoing technological advancements. The disruption era of the 21st century has brought great challenges to the people and nations of the world, necessitating the need for quality human resources to compete. The quality of human resources requires the arrangement of strategies that are directed, planned, intensive, effective, and efficient (Lamuri & Laki, 2022).

The steps that can be taken in developing quality human resources are to improve the quality of education (Salahuddin et al., 2018), where one of the unavoidable aspects is the implementation of learning technology that can accelerate the steps of the younger generation to achieve their dreams in their desired field (Salsabila et al., 2021; Suprapto, 2012). This is evidenced by the proliferation of local brands launched by a group of young people and start-up companies in Indonesia (Tarihoran et al., 2021; Hardiansyah & Tricahyono, 2019). In this situation, Indonesia has a tremendous opportunity to become a technological innovation and digital economy powerhouse. Therefore, technological support is crucial for creating a quality education, which includes the Office Administration Department at SMK.

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SMK is a school that prepares students to become skilled workers and places a premium on the ability to perform specific jobs. So that upon graduation from SMK, students will be prepared to enter the workforce. In this case, the quality possessed by SMK students must be adapted to reflect the current state of the labor market. The significance of technological skills for SMK students majoring in Office Administration stems from the fact that it relates to administrative services in an organization or business that has begun utilizing various technologies to enhance the effectiveness and efficiency of an administrative service (Harmini et al., 2021; Susanto et al., 2021).

As a result, the development of office administration learning technology as a simulation learning medium is deemed crucial. The learning technology developed by this researcher is intended to be used collaboratively as office or business tasks. The applications content relates to digital archive management, including both incoming and outgoing archives with five storage systems that can be alternately practiced. In addition, the application includes a digital letter-making feature that can be simulated by students in learning as in a company, as making this letter will involve the roles of students as secretaries whose primary responsibility is to create letters and students as leaders whose primary responsibility is to draft and approve letters created by secretaries.

Archive management and letter writing are required competencies for SMK students majoring in office administration, as these competencies relate to official evidence of accountability for the administration that has been carried out in the workplace. On the other hand, the independent curriculum contributes to providing space for the use of technology and allows education units the flexibility to use a contextualized operational curriculum, so that the learning applied is in accordance with the learning needs of students (Nugraha, 2022). It can also encourage schools, teachers, and parents to develop a more autonomous, innovative, and creative learning environment (Daga, 2021). Therefore, it is expected that students will be more self-assured, more enthusiastic about learning at school, and able to develop their talents in accordance with their individual interests.

This study will contribute to the literature on instructional media in order to enhance student collaboration. The developed learning media is designed to be worked on in a collaborative or group way, namely with the role of leader, secretary and archivist, this has not been found in previous studies. In addition, this research is useful for educators and policy makers to improve students' collaboration skills by utilizing instructional media in the learning process.

METHODS

The method used in this research was the development research method using the ADDIE model: Analyze, Design, Development, Implementation, Evaluation (Sugihartini & Yudiana, 2018). This model was chosen because it describes a systematic approach to instructional development. The steps of this research can be seen in Figure 1.

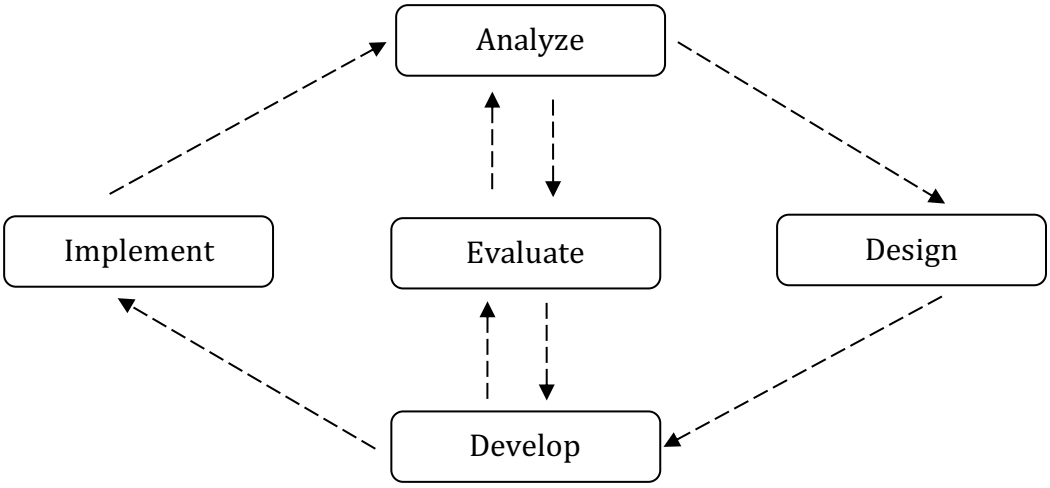

Figure 1. ADDIE Model Stages

Analysis Stage

In this stage, the main activity is to analyze the need for developing learning media to meet learning objectives, some of the analyzes carried out are as follows:

1. Performance analysis: In this stage, the basic problems encountered in learning in the independent curriculum begin to emerge, namely the need for learning media as a medium for student practice
2. Student analysis: Analysis is a study of student characteristics based on their knowledge, skills and development. This analysis aims to determine the various levels of student abilities. The results of student analysis regarding the ability to operate digital devices that can be used as an illustration in developing learning media. Some of the points that need to be obtained in this stage include: (a) characteristics regarding the development of learning media; (b) knowledge and skills that students already have regarding the use of digital devices; 9c) competencies that students need to have in learning; (d) forms of learning media development needed by students in order to increase student competence.
3. Analysis of facts, concepts, principles and procedures of learning materials: Analysis of materials with regard to facts, concepts, principles and procedures which are a form of assistance with the material so that it is relevant to the development of learning media. At this stage, the analysis was carried out using the literature study method.
4. Analysis of learning objectives: Analysis of learning objectives is a necessary step to determine the abilities or competencies that students need to possess. At this stage, there are a number of points that need to be obtained including: (a) predetermined learning objectives; (b) achievement of learning objectives. Thus, this stage can be used as a reference for developing learning media

Designing Stage

Product design aims to design media products that will be used based on problems found from the analysis stage, namely using web -based learning media. The steps of the product planning stage include the preparation of storyboard and system design in the development of web -based learning media "Stelar". The design of this web preparation contains two main menus, namely for teachers and students. The menu for teachers,

namely: (a) home—contains the initial display of the web or template and other menu bar and menu to run learning media; (b) registration and login—to enter and access features in the learning media system developed; (c) profile settings—to set user profiles including photos, names, and passwords; (d) class management—to create class, change class names, and delete classes; (d) material management—to add, change, delete and see the material by the teacher; (e) task management—to make a look, change and delete tasks; (f) manage student data—to see a list of students who are members of the class; (g) provide and change the value of the task

Meanwhile, the menu for students consists of (a) home—contains the initial display of the web or template and other menu bar and menu to run learning media; (b) registration and login—to enter and access features in the learning media system developed; (c) profile settings—to set user profiles including photos, names, and passwords; (d) enter class and company group—to join the class, group; (e) materials and tasks—to access the material given by the teacher and do the assignments given; (f) the role menu as leaders, secretaries, and archivists.

Development Stage

The activity carried out at the development stage is to develop applications that can be used as a simulation media to make digital letters and manage digital archives. In addition, it also developed a guidebook and questionnaire to measure the validity and response of the research subject. The development of the media was first made in the form of a flow diagram and storyboard so that in the development process it can be structured from the initial stages to the end. This process aims to ensure the development made in accordance with applicable standards. The workflow analysis system can also be an internal review of the development process that has been made. The main objective of this stage is to find out how effective and how the application projects in the future. In addition, the elements needed in developing this learning media include: Scene pages consisting of the initial pages, main menus, input device pages, output device pages, and processing devices pages.

Implementation

The implementation stage in this study is the stage for implementing the Stellar learning media design that has been developed in real situations in class. The developed Stelar learning media was delivered to 99 students based on the learning objectives. After being implemented in the form of learning activities, an initial evaluation is carried out to get a response and assessment of the learning media, as material for improvement in the development of subsequent learning media. The main objectives in the implementation step include: (a) guide students to achieve learning goals; (b) guarantee the occurrence of problem solving to overcome problems previously faced by students in the learning process (c) at the end of learning, student competence can increase.

Evaluation

The activities carried out at this evaluation stage intended to see and improve the learning application that has been developed if there are obstacles during the implementation process. In addition, in this evaluation stage, additional application features were also added based on suggestions given by students, so as to create an application that can be used for the learning process of office administration students.

The assessment instrument for the Stelar learning media is provided in Table 1.

Table 1. Assessment instrument for Stelar Learning Media

Item	Assessment Aspects	Scoring scale				
		5	4	3	2	1
I	Usability					
	1. Ease of use of the menus					
	2. Efficient use of the website					
	3. Ease of accessing the website address					
	4. The actuality of the website content					
II	Functionality					
	1. Use the main menu					
	2. Using the user menu (sign up and login)					
	3. Use of material and task menus					
	4. Using the menu to practice managing letters and archives					
III	Visual Communication					
	1. Communication					
	2. Simplicity and attractiveness					
	3. Visual quality					
	4. Use of layouts					
IV	Learning design					
	1. Clarity of purpose					
	2. Relevance between learning aspects (objectives, materials and use of media)					
V	Content Material					
	1. Quality of content material					
	2. The actuality of the material					
	3. Coverage of material					
	4. The depth of the material					
VI	Language and Communication					
	1. Language correctness					
	2. The accuracy of learning editorial					

Note. Score 5 = Excellent; Score 4 = Good; Score 3 = Average; Score 2 = Less; Score 1 = Poor

The response data were then analyzed using a Likert scale which would be described qualitatively in order to find out the average score of the eligibility aspect of the stelar media using the formula for the average score of the assessment. Furthermore, to interpret the results of calculations with these percentages, standards are shown in Table 2.

$$P = \frac{X}{Xi} \text{ x } 100\%$$

Information:
P = Percentage of trial subject results
X = Total score answers by test subjects
Xi = The maximum number of answers in the aspect of the test subject's assessment
100% = Constant

Table 2. Eligibility Criteria

Percentage	Category
81% - 100%	Very Worth it
61% - 80%	Worthy
41% - 60%	Less Eligible
21% - 40%	Not feasible
0% - 20%	Very Unworthy

RESULTS AND DISCUSSION

This research has produced a technology for simulating office practice learning that includes practical activities for archive and letter management (correspondence). The developed technology is referred to as STELAR, and its website can be accessed at https://adp-stelar.com/. This application is accessible from a variety of digital devices, including laptops, desktops, tablets, and mobile phones. This Stelar application has two access rights, one for students as the primary user and one for teachers as mentors and instructors responsible for providing students with work instructions. The Stelar application for student accounts is equipped with the following features: (a) "Class" feature to join a class and create a group; (b) "Director" feature to compose a letter, edit sent letters, access received letters, letters disposition, and signing a letter. (c) Secretary" feature to organize letters and manage letters archive; (d) "Archive" feature to organize sent letters, compose a letter, organize archive retention and classify letter. Figure 2 is the interface of student's page.

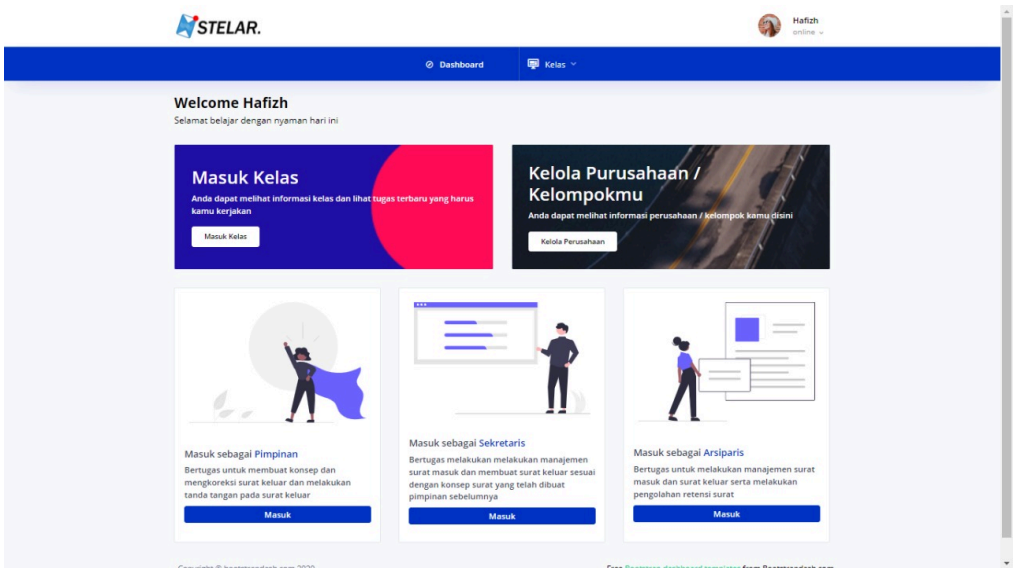

Figure 2. Stelar Interface for Student

On the other hand, the following is the Stelar features for teacher consists of (a) organize classes; (b) create an assignment and share a material; (C) make any assessment for student's assignments. In detail, the interface for teachers is presented in Figure 3.

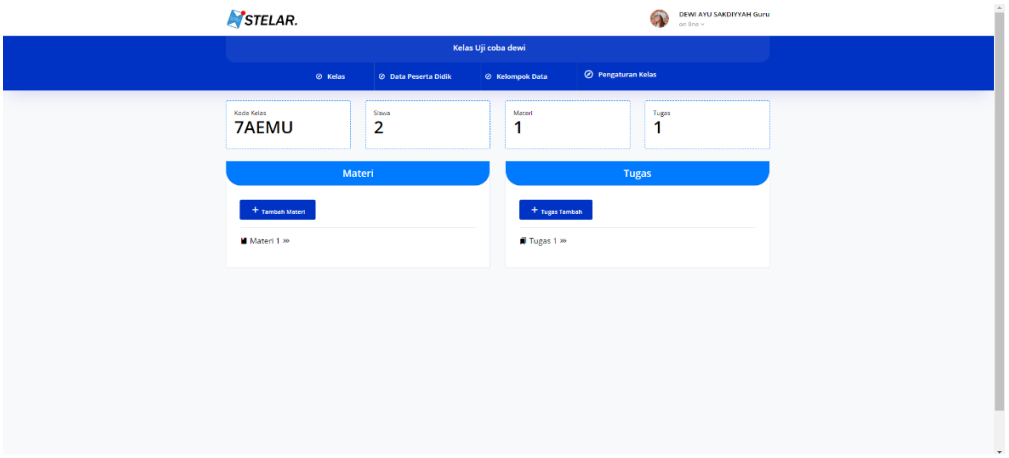

Figure 3. Stelar Interface for Teacher

The implementation of the Stellar learning media as a support for practicum activities for management of digital letters and archives was carried out by 99 students. This activity was carried out to determine the feasibility of learning media by looking at the responses of students majoring in office administration. The results of student responses are provided in Table 3.

Table 3. Results of Student Responses

Item	Assessment Aspects	x	xi
I	Usability		
	1. Ease of use of the menus	461	495
	2. Efficient use of the website	450	495
	3. Ease of accessing the website address	445	495
	4. The actuality of the website content	429	495
II	Functionality		
	1. Use the main menu	456	495
	2. Using the user menu (sign up and login)	455	495
	3. Use of material and task menus	453	495
	4. Using the menu to practice managing letters and archives	452	495
III	Visual Communication		
	1. Communication	451	495
	2. Simplicity and attractiveness	438	495
	3. Visual quality	434	495
	4. Use of layouts	450	495
IV	Learning design		
	1. Clarity of purpose	432	495
	2. Relevance between learning aspects (objectives, materials and use of media)	429	495
V	Content Material		
	1. Quality of content material	442	495
	2. The actuality of the material	458	495
	3. Coverage of material	446	495
	4. The depth of the material	436	495
VI	Language and Communication		
	1. Language correctness	443	495
	2. The accuracy of learning editorial	450	495
	Total	**8.910**	**9.900**

Discussion

Based on the results of these percentages (90%), it can be concluded that learning media is very suitable for use in the learning process. The learning media that has been developed can be a solution in improving students' collaboration skills, this is because the stelar media requires three accounts or users to be able to complete the task optimally. Collaborative learning must be incorporated into the learning process because collaborative activities can help to accelerate the learning objectives that have been established (Leonard, 2013). Teachers must also demonstrate collaborative learning because, so far, learning has typically occurred in one direction, with the teacher only conveying the material and students listening. As a result, teachers must frequently involve students in the learning process in order to foster collaboration between students and teachers, as well as between students and students, in order to produce quality learners.

Furthermore, the stelar application can provide a meaningful and quality learning experience because students can simulate managing archives and letters based on their roles. Learners can access experiences that would otherwise be unavailable due to cost, time, space, or real-world impossibilities through simulation media (Bonasai, 2019). Meanwhile, and more importantly, learners' skill level in terms of digital archive and mail management will improve, because the features developed in the application are realistically designed to describe the practical atmosphere of managing administration in the workplace. In this case, researchers maximized the use of the Stelar media by combining it with innovative learning methods that combine learning and working experiences in a single educational ecosystem.

According to a study conducted by Chang and Lai (2021), the immersive experience method allows learners to perform repeated practices without any teacher instructions because it does not require significant equipment. As with the researcher's Stelar application, it can be used continuously by students wherever and whenever they want without regard for space or time. Stelar learning media are used at the SMK education level, Department of Office Administration, by dividing the class into several groups of three students each. The teacher provides materials and practice questions through registration as a teacher in the Stelar application as an initial stimulus or as a model for students to carry out the practice of managing office administration through Stelar media. The extent of students' skills in making outgoing letters and managing incoming and outgoing archives is the result of this practice activity.

Work preparation is worth 5%, process (systematics & how to work) is worth 35%, work results are worth 35%, work attitude is worth 20%, and processing time is worth 5%. Based on the results of the Stelar application used by 99 Office Administration students, the average value for each group was 88.5%. Meanwhile, to assess the effectiveness of the Stelar application, students are given a questionnaire to assess the appearance, ease of operation of features, and provide feedback on obstacles encountered while using the application. Researchers used student feedback and suggestions to improve the quality of the media created. An average score of 90% was obtained based on the results of the calculation of the questionnaire assessment filled out by students on the Stelar Application. This

means that the learning media created meets the eligibility criteria for use as a learning medium for administrative management practices.

It is expected that the development of this Stelar learning media will improve students' skills in writing letters and managing digital archives, as well as their collaboration skills. Thus, students are prepared to enter the world of work, which requires a lot of collaboration to achieve predetermined goals. On the other hand, the Stelar application's development is intended to support students' abilities as digital natives, whose activities are mostly carried out with technological equipment as an auxiliary medium (Juliane et al., 2017).

CONCLUSION

The result of this research and development is instructional media for the practice of managing archives and creating digital letters named Stelar. Researchers created instructional media to be used as learning media for vocational students majoring in Office Administration. Based on the results of application activities on students, it is possible to conclude that the Stelar application is very feasible for use in the learning process, particularly in the practice of managing office administration. This research focuses on the development of website-based Stellar learning media that is adapted to the characteristics of Office Administration Vocational High School students, so the results of this study cannot be generalized to a broader research subject. We also estimate possible differences when used in other schools with different student characteristics. For this reason, we suggest that future researchers develop the same media based on different student characteristics to test the effectiveness of the developed learning media.

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