A Learning and Administration Website for Interns

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ABSTRAK

Penelitian dilakukan pengembang karena keterbatasan pengembangan dan validitas website pembelajaran dan administrasi untuk peserta kerja praktik di PT Pupuk Indonesia (Persero). Penelitian ini bertujuan untuk mengembangkan website pembelajaran dan administrasi magang di PT Pupuk Indonesia (Persero). Jenis penelitian ini yaitu penelitian pengembangan. Penelitian pengembangan ini menggunakan model ADDIE. Subjek penelitian ini adalah ahli desain pembelajaran, ahli isi pembelajaran, ahli media pembelajaran. Subjek uji coba yaitu 10 peserta kerja praktik diberbagai divisi sebagai uji coba perorangan, dan 5 peserta kerja praktik satu divisi sebagai uji coba kelompok kecil. Metode pengumpulan data yang digunakan yaitu observasi, wawancara, dan kuesioner Teknik analisis data menggunakan teknik analisis deskriptif kualitatif dan kuantitatif. Hasil yang diperoleh dari penelitian ini adalah produk website pembelajaran dan administrasi. Rancang bangun pembelajaran menurut review desain pembelajaran diperoleh hasil sebesar 92% dengan kategori sangat baik. Ahli isi pembelajaran sebesar 89%. Uji ahli media pembelajaran 91.2%. Uji ahli desain sebesar 90.5%. Uji coba perorangan sebesar 92,87%. Uji coba kelompok kecil sebesar 90,3%. Disimpulkan bahwa website pembelajaran dan administrasi peserta kerja praktek sangat layak digunakan.

ABSTRACT

Developers carried out the research due to limitations in developing and validating learning and administration websites for practical work participants at PT Pupuk Indonesia (Persero). This research aims to develop a learning and internship administration website at PT Pupuk Indonesia (Persero). This type of research is development research. This development research uses the ADDIE model. The subjects of this research are learning design experts, learning content experts, and learning media experts. The trial subjects were 10 practical work participants in various divisions as individual trials and 5 practical work participants in one division as small group trials. The data collection methods used were observation, interviews, and questionnaires. Data analysis techniques used qualitative and quantitative descriptive analysis techniques. The results obtained from this research are learning and administration website products. According to the learning design review, results obtained were 92% in the very good category. Learning content experts are 89%. They were learning media expert test 91.2%. Design expert test of 90.5%. Individual trials were 92.87%. Small group trials were 90.3%. It was concluded that the learning and administration website for practical work participants was very suitable for use.

1. INTRODUCTION

Indonesia is in need of high-quality and potential human resources in the form of skilled works (Asih & Nilakusmawati., 2017; Kusuma & Supartha, 2020; Labola, 2019). As university students complete their undergraduate studies, they possess the ability to apply the knowledge acquired in the classroom to address real-world issues. However, in order to ensure the effective application of this knowledge in the field, innovative approaches must be taken to bridge the gap between theory and reality (Annur & Hermansyah, 2020; Risnani, 2019; Setiadi & Yuwita, 2020). By doing so, students will have a more meaningful and impactful learning experience that prepares them to become successful professionals in their respective fields, ultimately contributing to the growth and development of Indonesia's economy and society. Education is a conscious and intentional activity that is designed to foster an active teaching and

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learning process, ultimately leading to the development of students' innate potential (Ahmadi et al., 2017; Fatah et al., 2018; Fuadi, 2021). Typically, education takes place within a formal classroom setting where teachers facilitate two-way interaction between themselves and their students (Buchori Muslim, 2020; Fuadi, 2021). Education is not just about imparting knowledge, but rather a means of guiding students towards achieving specific goals that will empower them to act autonomously, both for their own benefit and that of society (Pramono et al., 2021; Rachman et al., 2021; Rahmat, 2013).

Through this approach, students can cultivate a deeper understanding of themselves and their place in the world, ultimately contributing to the betterment of society as a whole. PT Pupuk Indonesia (Persero) is recognized as the largest producer of Urea fertilizer in Asia and among the top ten Urea fertilizer producers globally (Mihardjo et al., 2021). The company's continued growth and success is reflected in its impressive assets of IDR. 128.49 trilion in 2017 and a fertilizer production capacity of 12.6 milion tons per year (L.D.C.Pupuk Indonesia, 2020). Through its ten subsidiaries, PT Pupuk Indonesia (Persero) has solidified its position as the leading fertilizer producer in Asia, with a diverse range of fertilizers including Uera, NPK, ZA, Organic, and SP-36 fertilizers (L.D.C.Pupuk Indonesia, 2022).

By providing these vital resources, the company has made a significant and great impact on Indonesia's economy and the global agriculture industry, supporting the growing demand for food and agricultural products. Licensing data from PT Pupuk Indonesia shows that participant learning and attendance administration in practical work still need improvement because administration for attendance only uses conventional media using paper and must manually confirm the absences of the participants in the company's practical work. Learning between mentors and practical work participants is still relatively conservative with only one direction. Practical work participants and mentors have access to personal smartphones and laptops to support learning activities and practical work. To address these issues, the researchers have proposed the use of a learning website with an attractive interface to enhance the learning experience for practical work participants.

This solution leverages the accessibility of personal smartphones and laptops to provide a more efficient and personalized learning environment. A website learning and administration platform is designed to facilitate the learning and administrative processes in educational and corporate settings, providing trainees with access to important information such as assignments and learning materials. Website is a collection of interconnected pages that may include text, images, animations, and sound (Amalia & Brata, 2018; Mulatsih, 2020; Serevina & Meyputri, 2021; Sumardi et al., 2021). Websites have become an alternative as a platform for sharing information, and they have been widely utilized by various institutions for development purposes (Florensius, 2022; Wilujeng et al., 2020). The online attendance system on this website is a system design aimed at facilitating office and HRD personnel in creating attendance reports for all employees in the office. This system also saves time, allowing employees to be more productive in their work. As a result, it positively impacts the progress and success of the office, as the progress and success of the office depend on its employees (Azzahra & Pramudiani, 2022). Absence refers to the presence or absence of an object, in this case, a person, where the person is involved in a company that requires notification of their status or presence/absence within the scope of the company (Abdul, 2017). The benefits of using a website for learning and administration are numerous. it provides a centralized location for all important information related to the learning and administrative processes, which can help to reduce confusion and increase efficiency (Bakri et al., 2016; Fahyuni et al., 2020; Kassim & Idris, 2018). Additionally, the website can be accessed from any location with an internet connection as consideration, allowing for remote learning and administration (Ahsan et al., 2023; Sumardi et al., 2021).

Moreover, it can be customized to meet the specific needs of the education or corporate environment. For instance, it can be used to deliver personalized learning experiences, track learner progress, and provide feedback and assessments. Automating the attendance system has advantages over traditional methods, such as saving time and enhancing security. It also helps in preventing fake attendance (Trivedi et al., 2022; Wilujeng et al., 2020). Attendance administration is crucial for any organization, as it ensures the attendance and discipline of employess in carrying out their duties. This leads to increased work productivity and minims unscheduled absences. It obviously also helps in fulfilling employee rights, such as leave and permits, and provides data for payroll processing. However, maintain and updating attendance administration regularly is vital for efficient organization operations. By adopting this approach, the company can improve their attendance administration processes and enhance the overall effectiveness of their learning programs. Based on this, this research aims to develop a learning and administration website for internships at PT Pupuk Indonesia (Persero).

2. METHOD

This study is creating a new learning website using a method called research and development (R&D). The process ADDIE model follows five steps, including analyzing the audience's needs, designing and developing the website, implementing it, and evaluating how well it works. The goal is to make a website that meets the needs of practical work participants and helps the organization. At analysis stage, researchers analyze development needs, feasibility and product requirements to be developed. The analysis phase is divided into three parts, namely Needs Analysis, Administrative Analysis, and Character Analysis of Practical Work Participants. At design stage, the information obtained from the analysis phase is transferred into the form of a document that will be the goal of product development research, one of the forms of documents produced is in the form of concept maps, frameworks, and display designs or wireframes of product research and development. At development stage, product development research and development is carried out in accordance with the designs that have been made at the design stage, namely the development of wireframes and flowcharts which are changed to display websites using bootstrap and laravel templates. At implementation stage, the development research product is implemented in a real situation, namely in the place where the research subject has been determined. Researchers explain research products that have been developed and testing. Validation by learning design experts, learning media experts, content experts and design experts before being tested in schools. The researchers served as an explanation for the practical work participants were also given an account for a trial run. At evaluation stage, researchers make improvements to research products that have been developed based on suggestions and input that come from response questionnaires or observation notes on observation sheets. It is intended that the research products developed are truly appropriate and can be used by agencies that are the subject of research more broadly. Product validity testing is carried out to determine the suitability of the product by experts (learning content experts, learning design experts, and learning media experts). Product trials on students include individual trials and small group trials. The methods used to collect data are observation, interviews and questionnaires. The instrument used to collect data was a questionnaire sheet. The questionnaire grid used is presented in Table 1 and Table 2.

Table 1. Grid - Toolkit for Learning Design Experts

No.	Component	Indicator
1	The Development Model used	a. The suitability of the development model used with the characteristics of the product produced b. Appropriate reasons for selecting the development model c. Compatibility of the development stages carried out with the development model used d. Accurate depiction of website development stages based on product flowcharts and wireframes
2	Development Stages	a. Conformity of the development stages carried out with the development model used b. Accurate depiction of website development stages based on product flowcharts and wireframes
3	Strategy Aspect	a. Submission of Learning Objectives and appropriate corporate culture material in learning articles b. Table of contents shortcut button that makes it easy to move material between articles c. The level of practicality of the process of entering/logging in to participant accounts and administrators/managers d. Ease of use of the article menu and website gallery as apprentices e. The ease of creating articles as an administrator/manager f. Ease of galleries in the main view g. The ability to feature website articles as interactive discussions between participants
4	Aspects of absenteeism strategy	a. The accuracy of the attendance plan according to administrative needs b. Provides photo upload feature c. Provides placement location features according to the building occupied d. Clarity Absent Report feature for recap

Table 2. Instrumental Grids for Learning Media Experts

No.	Aspect	Indicator
1	Media Design	a. Media suitability of the article
		b. Appropriateness of attendance media for the administration of participants in the work unit
		c. Color Match
		d. The suitability of the website landing page layout
		e. Dashboard website layout suitability
		f. The home website design and dashboard are interesting to look at
		g. Text readability
		h. The text design used
		i. Text layout
		j. Supporting image clarity
		k. Image size is appropriate
		l. Image upload speed in attendance and gallery features
		m. Clarity in attendance input and attendance reports
		n. Navigation key display
		o. Navigation button layout
		p. Accessibility navigation buttons
2	Software/Servers	a. Smooth operation
		b. The website can be used properly
		c. The convenience of the website on the hosting server
		d. Communicative and Interactive
3	Benefit	a. Website usability as administration and learning articles
		b. Increase enthusiasm for learning and work
		c. Increase Participant understanding
		d. Assisting staff and mentors in transferring knowledge sharing (knowledge sharing)
		e. Improving the process of optimizing attendance for staff and managers

After going through the stages of preparing the instrument, the next step is to review by an instrument expert whether the instrument items are relevant or not to the interactive learning multimedia being developed. The techniques used in analyzing data are qualitative and quantitative descriptive analysis. Qualitative descriptive analysis is used to process data in the form of suggestions given by experts and students. Quantitative descriptive analysis is used to process data in the form of scores given by experts and students. To be able to provide meaning and make decisions, the 5 Converted achievement level scale provisions are used which are presented in Table 3.

Table 3. Level of Achievement Scale 5 Converted

Level Achievement %	Qualification	Information
90-100	Very good	No need to revise
75-89	Good	Slightly revised
65-79	Enough	Revised to taste
55-64	Not enough	Many things were revised
0-54	Very less	Repeated product creation

(Tegeh et al., 2017)

3. RESULT AND DISCUSSION

Result

The initial stage consists of two analyses, namely the analysis of the characteristics of the problem, namely the learning of the practical work participants and the analysis of administrative facilities. Based on the results of an analysis of the characteristics of practical work participants and learning problems, the company does not yet have a website for learning articles and attendance as learning media and administration specifically designed for practical work participants. The second stage is the design stage. At this design stage, six stages of work were carried out, namely making the main

flowchart, admin flowchart, user flowchart looking for ERD attendance templates, wireframes, compiling website assessment instruments which included expert test questionnaires and trials on students, and reviewing learning articles based on the HR syllabus in Managers Learning.

The third stage is development, at this stage it begins with compiling the Laravel database and installing the bootstrap template which is already available in the open-source community on Github, which is adapted to wireframes and flowcharts. The applications used in website development are Visual Studio Code, Adobe Photoshop 2022, XAMPP, and several supporting frameworks, namely Laravel as the back-end compiler and Bootstrap as the front-end compiler. This research was conducted on practical work participants at PT Pupuk Indonesia (Persero). This study has subjects, namely practical work participants in each department, totaling 10 people in each division and 5 participants in one learning management division. An overview of the products being developed can be seen in Figure 1.
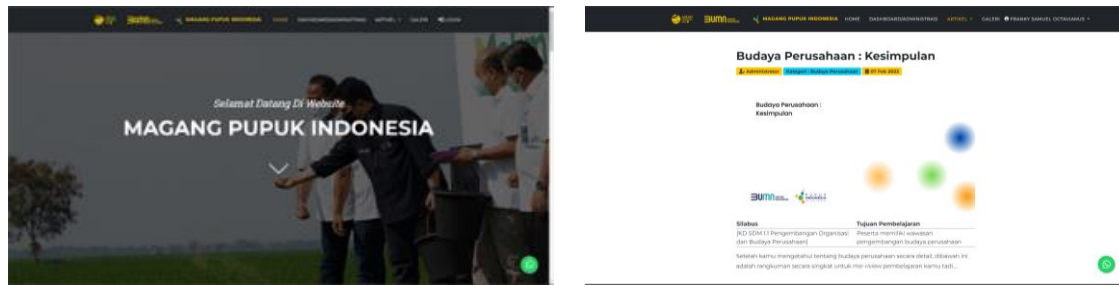

Figure 1. The Results Development of a Learning and Administration Website for Interns

Test the learning design expert on learning and administration website products using a questionnaire with a scale range of five. After being tested by a learning content expert, the percentage of results is calculated and converted using a five-scale achievement level table. The results show that the percentage of 92% is included in the 90-100% range with very good qualifications, and does not need to be revised because it is feasible to use. However, no suggestions, input, or comments were provided by learning content experts. Test the learning design expert on learning and administration website products using a questionnaire with a scale range of five. After obtaining the percentage from the results of the learning media expert test, then these results are converted with a conversion table of the level of attainment of a scale of five. Based on the five-scale conversion table, the percentage obtained is 91.2% in the range of 90-100% with very good qualifications and no need for revision. These qualifications indicate that the learning and administration website is feasible to use. The suggestions and comments of learning media experts are Articles are divided, Added dashboard menu in navbar, Create website guides/website guides, Gallery is connected with social media, The gallery is connected to the youtube channel, Manager whatsapp contact.

The expert test of learning content on learning and administration website products uses a questionnaire with a scale range of five. After obtaining the percentage from the results of the learning content expert test, then these results are converted with a conversion table of the level of attainment of a scale of five. Based on the five-scale conversion table, the percentage obtained is 89% in the range of 75-89% with the qualifications needing to be slightly revised. These qualifications indicate that the learning and administration website is suitable for use with minor revisions. The results of learning content expert suggestions and comments are Revise the sentence articles in the main menu of the article to become "Learning articles for apprentices in each work unit", and The content is in accordance with the syllabus, it's good.

The expert test of learning content on learning and administration website products uses a questionnaire with a scale range of five. After obtaining the percentage of the results of the design test, then these results are converted with a conversion table for the level of achievement of a scale of five. Based on the five scale conversion table, the percentage obtained is 90.5% in the 90-100% range with very good qualifications and no need for revision. These qualifications indicate that the learning and administration website is feasible to use. The result design expert advice and comments is it's good that there is a slight revision in the color section and added the ASEAN 2023 and BUMN logos in the upper left corner of the navigation. The individual trial phase was carried out after the four expert trials were carried out. The individual test is given to participants in each work unit, namely one person, a total of 10 people. Of all the percentages, F:N = 928.7% : 10 = 92.87% , then the results are converted with a five-scale attainment level conversion table. Based on the five-scale conversion table, the percentage obtained is 92.87% in the range of 90-100% with very good qualifications and no need for revision. The small

group test phase was carried out after the individual tests were carried out. The small group test was given to participants in the learning management work unit with a total of 5 people. Of all the percentages, F:N = 451.5% : 5 = 90.3% , then the results are converted with a five-scale attainment level conversion table. Based on the five scale conversion table, the percentage obtained is 90.3% in the 90-100% range with very good qualifications and no need for revision. The results of data analysis on the development of learning and administration websites for practical work participants at PT. Pupuk Indonesia includes analysis namely, analysis of development validity results. Following are the results of the validity analysis of the development of learning and administration websites for practical work participants at PT. Indonesian fertilizer Table 4.

Table 4. Percentage of Website Development Validity Test Results

No	Test Subjects	Outcome Trial Subjects	Description Validity
1.	Learning Design Expert Test	92%	Very good
2.	Learning Media Expert Test	91.2%	Very good
3.	Learning Content Expert Test	89%	Good
4.	Design Expert Test	90.5%	Very good
5.	Individual Trial	92.87%	Very good
6.	Small Group Trial	90.3%	Very good
Total Average		**90.97%**	**Very good**

Based on the research results, it was found that Learning and Administration Website Development for practical work participants at PT. Pupuk Indonesia (Persero) obtained very good qualifications based on the results of expert tests and trials on students so that this development research product is suitable for use in the learning and administration process.

Discussion

The website developed serves as a platform for employee attendance at PT Pupuk Indonesia (PERSERO). Employee attendance is a data that indicates the presence of employees on a daily basis within a company. The data that can be generated from employee attendance includes the time of arrival and departure of employees as evidence of their presence at work. Additionally, the status of employees who are absent from work can also be determined, whether they have permission or are sick. In designing learning products for practical work participants at PT Pupuk Indonesia (Persero). It is important to understand the characteristics of practical work participants so that the products developed can suit their way of learning and encourage them to study independently (Amalia & Brata, 2018; Sumardi et al., 2021; Wilujeng et al., 2020). The results of individual and small group trials show that the development model used, the aspects of development stages, strategies, and attendance strategies have very good qualifications. In this case, the learning design expert's assessment is in line with product implementation for practical work participants. Appropriate learning design, namely the clarity of learning objectives will have an impact on the quality of learning, and vice versa (Sahudra et al., 2021; I. M Satyawan et al., 2020; Satyawan et al., 2021).

Based on the results of reviews from media experts, learning websites for practical work participants at PT Pupuk Indonesia (Persero) are viewed from the aspect of message design and web design for learning and administrative websites must pay attention to aspects of message design. With pictures, audio and video in learning articles, learning about Corporate Culture makes it easier for practical work participants to learn independently so that the process of transferring knowledge in practical work becomes more optimal. In addition, the advantages of presenting video in a medium provide real experience in interpreting an object in real terms to students, so that students get a clear picture of the object being discussed (Andriyani & Suniasih, 2021; Megawati & Utami, 2020). Lessons visualized in animated form would be more meaningful and interesting and easily accepted, understood, and motivating (Lestari & Mustadi, 2020; Rahayu et al., 2021). The advantage of learning videos is that they can combine moving images and sound so that they can be an attraction for users in understanding and absorbing material (Hariandi et al., 2020; Nurhayati et al., 2022). Based on the input, comments, and suggestions of learning design experts, there are suggestions and comments, namely the article is explained in more detail, namely by dividing it so that the curiosity of the participants is more motivated. The addition of a dashboard menu to the navigation bar is an efficiency for practical work participants to more quickly take attendance and open their dashboard. It can be concluded that media designed based on message design theories makes it easy for users to access media content, and vice versa uality of learning, and vice versa (Sahudra et al., 2021; I. M Satyawan et al., 2020; Satyawan et al., 2021). The

results of the review of learning content experts, learning websites for practical work participants at PT Pupuk Indonesia (Persero) obtained good qualifications. Judging from the aspect of the syllabus, content, and benefits that are in accordance with the company's internal references that make learning websites for practical work participants in accordance with basic competencies, as well as learning objectives. The suitability of content with learning objectives is very important in making media, this is in line with expert opinion that in assessing content aspects it is necessary to pay attention to the design of learning objectives (Kmurawak & Mandowen, 2021; Sahudra et al., 2021; Wulandari et al., 2020). Laravel makes it easy for administrators to manage student attendance data automatically which is integrated with the absent template database. This is because Laravel makes it easy for managers to enter participant data, check the attendance system, and download attendance results reports.

The implications of this interactive multimedia learning development research are first, it can assist teachers in delivering learning materials with more innovative methods, enabling students to be more active and responsive, as well as enhancing their motivation and learning outcomes. Second, it encourages teachers to improve their ability to utilize technology and operate digital learning media, thereby helping to enhance the quality of education. Third, it can increase students' interest in participating in the learning process. However, a drawback of the learning and administration website is that it requires an internet connection on the device being used.

4. CONCLUSION

The results obtained were validated by learning media experts and learning design experts who received very good qualifications. The product trial results also show that the product developed has very good qualifications. This shows that the learning and administration website for practical work participants is very suitable for use. The learning and administration website for practical work participants makes it very easy for internship students.

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