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Optimization of the e-learning system for efficiency of participant registration times at training institutions: Case study at an ESAS management institute

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Abstract
Application e-learning technology has become integral to management education and training in various institutions. One of the aspect keys in context is the efficiency of time registration of participants. This article documents studies of cases carried out at the ESAS Management Institute, which aims to optimize the e-learning system to increase efficiency in the time registration of participants. This study integrates qualitative and quantitative methodology to comprehensively understand changes that occur in participants' registration process after the implementation of the e-learning system. Research results show significant improvement in speed registration participants. Queues and times wait participants are reduced, and e-learning systems provide 24/7 availability, eliminating limited time in the registration process. Verification documents become more accurate, reducing the risk of error, man. In evaluating sustainability, participants and staff administration give bait to come back optimistic about change. This article also highlights the importance of data collection and evaluation sustainability in maintaining and improving the efficiency system. This study gives a strong foundation for institutions with other training to optimize their e-learning system for efficient time registration participants. Thus, the article gives a valuable guide in adopting e-learning technology to increase the experience of participants and the efficiency of administrative processes in institutional training.
Keywords: E-Learning, Time Efficiency, Registration Participants, Training, System Information, Evaluation

1. Introduction

In a world of everything fast moment, where the demands on individuals and organizations for learning sustainability and development professionals are once more prominent, e-learning becomes more significant. As a versatile and flexible platform, E-learning offers potency for revolutionizing landscape education, making learning accessible and efficient. However, implementing e-learning systems is challenging (Sari et al., 2020). Introduction This serves gap research, urgency research, research previous, novelty, goal, and potential benefit study in context optimizing e-learning system for registration efficient participants in the institution training, with studies case at the ESAS Management Institute. PT ESAS Edukasi Indonesia (ESAS Management) is an institution of education, training, and certification for Creating competent alums in the field. ESAS Management is located at the Tanjung Mas Raya Office Block B1 No.44 Tanjung Barat, South Jakarta. This institution engaged in the Tutoring. Several programs are currently underway. Keep developing and improving Training and Certification Competence BNSP, Non-BNSP Certified, and NLP.

Utilizing an e-learning system for registration participants in the institution training is an area of need for more exploration (Utami et al., 2020). Although e-learning platforms have gained popularity for delivery courses, they are only sometimes optimized for administrative processes, including registration participants. There needs to be more literature about developing and improving designed e-learning systems, especially for streamlining and speeding up the registration process for participants. Study This will focus on coping with the gap with the proposed optimized e-learning system for registration efficient participants (Wulandari, 2017).

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This originates from increasing requests, which will be an efficient and effective training program time in a competitive environment. Training institutes such as the ESAS Management Institute must ensure that participants can access and enroll in courses with minimal friction (Fauzih et al., 2020). This urgency is underlined by the global trend towards learning distance remotely and online caused by the COVID-19 pandemic, which requires system-efficient e-learning registration. Temporary e-learning systems have been researched extensively regarding effectiveness for pedagogical and experiential users; dedicated research is scarce for optimizing systems for administrative processes (Pamungkas et al., 2020). Existing research mainly focused on delivery content, engagement of students, and results education. This study will build the field of more e-learning research with direct attention to aspects of administration e-learning (Rahman et al., 2020).

This focuses on optimizing an e-learning system for registration participants in arrangement institution training, with a case study at the ESAS Management Institute. This study will introduce innovative strategies and technology to streamline the registration process, making it more efficient and user-friendly. It will contribute to developing models that can similarly apply to institutions' training (Akhmadi, 2021).

The study's primary purpose is to assess the registration process participant moment at the ESAS Management Institute and identify congestion and inefficiency. To develop an optimized e-learning system for efficient registration participants, integrating accessible features was used. For implementing and testing the proposed system in the real-world ESAS Management Institute context. To evaluate the impact of an e-learning system optimized for efficiency and satisfaction of users from the registration process. To give recommendations for more adoption-wide from the system at the institution training.

Potential benefits from studying this diverse. First, this will provide ESAS Management Institute and institutions training similar to a practical model for increasing the efficiency of the registration process for participants through the e-learning system. Second, this will contribute to more e-learning research emphasizing the importance of optimization administration. Finally, by streamlining the registration process, research will increase users' experience for potential participants _ leading to improved registration and satisfaction among participants. This study promises enhancement of effectiveness and accessibility of training programs and e-learning systems; requirements urge in landscape developing education fast moment.

2. Research methods

Study This will use an approach to optimize the e-learning system to increase efficiency in registering participants at the ESAS Management Institute. The following steps will be followed in the study: (1) Preliminary study: (a) Interview with management and staff ESAS Management administration to understand the registration process of existing participants. (b) identify possible problems, obstacles, and inefficiencies in the registration process of participants. Process Analysis: (a) Analyze existing participants' registration process, including steps, documents, and time required. (b) Taking notes of every registration process stage participant, including an interaction between participants and staff administration. Comparison with Best Practices: (a) Identify the practice best in management registration participants at the institution training similarly. (b) Compare the registration processes of ESAS Management participants with the practice best found.

Development E-Learning System: (a) Develop an optimized e-learning system for registration participants. The system will cover features like form online registration, automation verification documents, and integration with system management participants. (b) Ensure the system can be accessed easily by participants; they possibly fill in the registration form and upload the required documents. Implementation: (a) Implement an optimized e-

learning system in ESAS Management. (b) Training will be given to staff administration and participants about the method use system. Data Collection: Collect data during the implementation period, including time required to finish registration participants and bait come back from participants about their experience in the system. Evaluation and Analysis: (a) Analyze the collected data to evaluate the effectiveness of the optimized e-learning system in increasing the efficiency of time registration participants. (b) Identify positive changes in time registration participants and possibilities for enhancement of amount registration. (c) Analyze bait and come back to participants and staff administration to evaluate satisfaction with the system.

3.   Research Results and Discussion

After thorough research, we found in-depth results and analysis related to optimizing the e-learning system to increase the efficiency of time registration participants at the ESAS Management Institute. Following are the results of the research and discussion:

a. Analysis of the Initial Registration Process

In the beginning stages of the research, we analyzed the registration process participants at the ESAS Management Institute. We found that this process involves some steps, including the charging form, collection document, and manual verification processes by staff administration. This process needs significant time and improves the possibility of error.

Analyzing the beginning of the registration process is a key step in a study about the optimization of an e-learning system for efficient time registration participants at the ESAS Management Institute (Asdari et al., 2022). In the analysis, the researcher records, understands, and evaluates all processes involved in registering participants manually before optimizing the e-learning system. Several aspect essential things to analyze in the registration process beginning include:

a) Steps Registration: Research identifies every step in the registration process involving participants' use of physical, document, and interaction directly with staff administration. This includes charging forms, collection documents, verification of identity, and filling in participant data in the system.

b) Required Time: the aspect analyzed key is the time participants must complete the registration process. At the beginning of the registration process, this process often takes quite a long time, especially Because several stages need manual verification.

c) Inefficiencies and Possibilities Error: In analysis, we found inefficiency in manual processes, such as the possibility of errors in charging forms, loss of documents, and delays as a consequence of manual verification. Error sort of This can result in severe problems for registration participants.

d) Interaction Participant with Staff Administration: At stage analysis, the researcher notes the interaction between participants and staff administration. It involves communications, questions, and possible changes required in documents or participant data.

The result of the analysis of the registration process is significant Because it gives a clear picture of the challenges and obstacles existing participants face in the registration process. This also helps identify possible changes and improvements in developing an optimized e-learning system (Sari, 2022). The analysis becomes a basis for designing features of the e-learning system that will speed up and optimize the registration process for participants, reduce the time required, and reduce the risk of error. Thus, analyzing the beginning of the registration process is critical in the journey to efficient time registration of more participants.

b. Development E-Learning System

Developing an e-learning system is critical to studying optimization time registration participants at the ESAS Management Institute. It involves designing, manufacturing, and

implementing an optimized e-learning system to increase the efficiency of the registration process participants. The following are components critical to the development of an e-learning system.

Form Online Registration

The first step in developing an e-learning system is to design and implement it through online registration. Form Participants must easily use this and include all necessary information for registration. Participants can fill in the forms. This way, electronics avoid using the form physique.

Automation Verification Document

The e-learning system must be able to automate verification documents uploaded by participants. This includes verification of identity self, certificate of education, or other possible documents required (Prawiradilaga, 2016). System This must recognize and check the validity of documents. This automatically eliminates the need for manual verification by staff administration.

Integration with System Management Participant

 An optimized e-learning system must connect directly with system management participants in the institution's training. This is possible information participants through form online registration quickly entered into the database (Sonia, 2020). This matter reduces the risk of human error and ensures that participant data is accurate and up-to-date.

Participant and Staff Access Administration

Participants must access the E-learning system easily by accessing form registration, uploading documents, and tracking registration status. Additionally, staff administration must also have access to the system to monitor the registration process participants and perform action verification if required.

Training User

Training must be given to staff administration and participants as part of the development of an e-learning system. Staff administration must understand the system's operating method, monitor registration participants, and complete verification If required. Participants must give information about the method used for online registration and uploading documents (Mahnun, 2018).

Maintenance and Development of Sustainable

After implementing the e-learning system, it is essential to keep going, maintain it, and ensure it walks well. Development sustainability is also necessary for renewing the system for possible needs that appear in the future. Development optimized e-learning system aims to replace the complicated and time-consuming manual registration process time with more processing fast, accurate, and efficient. This also helps reduce the burden of Work staff administration, improve participant satisfaction, and ensure that participants can access required training quickly.

c. Implementation E-Learning System

Our optimized e-learning system is implemented at ESAS Management Institute. During the implementation period, participants and staff administration accept training for using a system (Mu'minah & Gaffar, 2020a). We ensure that participants can easily access and complete online registration and upload the required documents. Implementing an e-learning system is critical in studying optimization time registration participants at the ESAS Management Institute. It involves the practical implementation of a system that has been developed. Following are several points It is important to explain more about the implementation of the e-learning system:

Platform and Software Selection

Before implementation, selecting the platform and device-appropriate software for the e-learning system is necessary. This includes choosing infrastructure technology that will used,

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such as servers, databases, and devices hard. Additionally, soft devices for forming online registration, automating verification documents, and integrating with system management participants should be recognized and installed.

Initial Data Transfer

Data on participants who have therein system management old participants must be moved to the new e-learning system. This is critical Because it ensures participant data is still available and accurate after transitioning to the new system.

Training User

Before launch, training must be given to staff administration and participants. Staff administration needs to understand the methods of using the e-learning system, managing registration participants, and integrating them with the system management of existing participants. Participants must be given a guide about method access from online registration and document upload.

Testing and Solving Problem

Before launched in a way complete, the e-learning system must undergo series testing (Putra, 2019). This includes testing functionality, testing integration with system management participants, and testing burden for ensuring performance system moment used by many Participants simultaneously. Testing This helps identify and solve potential problems before the system is used actively.

Manual Process Replacement

Implementing an e-learning system involves replacing manual steps in the registration process with online features. Participants are given access to form online registration and verification documents done in a way automatically by the system (Mu'minah & Gaffar, 2020b). Staff administration changed the method of processing registration participants using the system.

Supervision and Support During the Implementation

Essential for monitoring and delivering support during the period of implementation. Staff administration and participants may face challenges when adapting to the system. Support technical and training addition possible required.

Initial Performance Evaluation

After implementation, the performance of the beginning system is evaluated to ensure that all components work well. The time required to complete the registration process, accuracy verification documents, and feeds coming back from participants and staff administration are considered in the evaluation. Implementing an e-learning system is crucial in changing the registration process so that participants become more efficient and effective. With exemplary implementation, institutional training can increase service, minimize the risk of error, and allow access to training quickly.

d. Data Collection and Evaluation

During the implementation period, we collect related data time required to complete the registration process participants with an optimized e-learning system. We also ask bait come back from participants and staff administration about their experience in the system (Khairani et al., 2021). Collection and evaluation are essential in a study about optimization time registration participants at the ESAS Management Institute after the implementation of the e-learning (Dikananda et al., 2019). Steps: This helps monitor the new system's performance, identifies weaknesses or potency repairs, and ensures objective efficiency time registration. The following explanation about data collection and evaluation:

Collection

Data collection involves collecting relevant information related to participants' registration process through a new e-learning system. Collected data can include the following:

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a) Registration time Participants: Time required by participants to complete the registration process online;
b) Accuracy Verification Document: Evaluation of the extent to which the system can automate verification documents and reduce error;
c) Amount Registered Participants: Information about How many participants have used the system;
d) User Feedback: Respond to participants and staff administration about their experience with the system.

This data can be collected through surveys, observations, system log analysis, and interviews.

System Performance Evaluation

The evaluation performance system covers an analysis of the extent to which the e-learning system meets the goals that have been set. Aspects evaluated include:

a) Efficiency: A Comparison time required for registration participants before and after the implementation of the e-learning system;
b) Accuracy Verification Document: Rate of errors that can be identified in verification automatic document;
c) Availability System: Confirm that the system is available and accessed by participants without disturbance;
d) Use System: Analyzing the extent to which participants and staff administration use the system;
e) Problem or Barriers: Identification of problems or possible obstacles that arise during the implementation or use of the system.

Comparison with the intention

Evaluation result compared to objective beginning research, i.e., increase efficiency time registration. Evaluation helps evaluate if the e-learning system has fulfilled the goal or needs adjustments or additions.

Improvements and Changes

Based on the evaluation of the results, improvements, and changes to the e-learning system can be made. This can cover enhancement feature systems, provision training additions for users, or adjustments in the registration process.

Continuous Monitoring

Evaluation of performance systems and data collection must be a continuous process. An e-learning system must be monitored continuously to ensure optimal performance. Periodic data collection and evaluation will help identify a potency repair addition and maintenance system that is still efficient. Collection and evaluation performance are crucial elements to cycle repair sustainability. This helps ensure that the e-learning system continues to walk with good and keeps going, giving benefits in the form of efficient time registration of desired participants.

e. Change in Registration Time Efficiency

Research results show significant enhancement in the efficiency of time registration participants. The previous process took days. Now, it can be resolved in time One or two days. This matter directly benefits participants, who do not need to wait long to access their training needs (Adisel & Prananosa, 2020).

Change in efficiency time registration refers to the extent of implementation of the e-learning system that has affected the registration process participants with reduced time required for completing the registration process (Juniastuti et al., 2018). Change This is an indicator of the main success of the e-learning system and will influence the satisfaction of participants and the efficiency of operational institution training (Koessoy et al., 2022). Following is more understanding of the change in efficiency time registration.

Enhancement Speed Registration

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One of the expected results from implementing an e-learning system is enhanced speed registration. Participants must complete the online registration process faster than the previous manual process. This can be measured in the minutes or hours required to finish registration.

Subtraction Queue and Waiting
In the manual registration process, participants possibly need to queue or wait their turn to fill in the form and perform verification documents. With an e-learning system, queues and waiting must be reduced, and participants can register without waiting for long.

Availability
One of the significant benefits of the e-learning system is 24/7 availability. Participants can only register when, including outside working hours, weekends, or holidays. This eliminates the limitation of available time in the manual registration process.

Reduced Accuracy and Errors
Using an automated e-learning system helps reduce errors in the registration and verification process document. It means participants can register more fluently without the risk of possible mistakes hindering the process.

Real-Time Monitoring
E-learning systems make it possible to monitor the registration status of participants. If required, staff administration can see new participants register and get quick processing verification. This matter reduces time delay in the process.

Participant Feedback
Bait coming back from the participants indicates the change in efficiency in time registration. If participants state that the registration process has become faster and smoother, this is a sign that change has an impact.

Repair Sustainable
Periodically, the evaluation will help identify if there is room for repair and more carry-on in efficiency time registration. If the review of the result shows that change has reached limitation, improvements, additions, or adjustments are Possibly required to keep going to increase efficiency. Change in efficiency time registration is one of the indicators of the successful implementation of the e-learning system. With significant changes and improvements in efficiency, institutions' training can give more service to participants and help them start training faster.

f. Satisfaction Participants and Staff Administration
Bait return received from participants and staff was very positive. Participants feel that optimized e-learning systems are easier to use and speed up registration. Staff administration also reported that the subtraction burden is significant in matter verification documents and participant data processing.

Based on the research results, we recommend developing an optimized e-learning system similar to institutional training. We also recommend that the ESAS Management Institute continue to monitor and maintain the system. To ensure the continuity and efficiency of registration of participants. Studies prove that optimizing e-learning systems can significantly increase the efficiency of registering participants in the institution's training. With this enhancement, institutional training can give participants more service and ensure access to essential training programs. Optimization system This No, regardless of the role of Enterprise Risk Management. Enterprise Risk Management, abbreviated as ERM, is a tool that helps management capable of handling risk business company in a way thorough and proactive, so the company can in a way effectively zoom out the possibility of something incident risk (risk event) that can thwart the achievement objective company and/ or zoom out the impact from incident risky the to achievement objective earlier (Alijoyo, 2011).

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4. Conclusion

In a context study, optimizing the e-learning system has significantly improved the efficiency of time registration participants at the ESAS Management Institute. Implementation of the e-learning system allows participants to register more quickly, reduce queues, and eliminate obstacle-related time with a manual registration process. Apart from that, the e-learning system also successfully increases accuracy in verification documents, reducing and educating risk error man. With 24/7 availability and real-time monitoring, the registration process becomes smoother and more responsive to need participants. The bait coming back from participants also reflected satisfaction that they wanted to change. However, the implementation of e-learning systems is still ongoing. Evaluation performance is ongoing; data collection will become vital in maintaining and improving the system's efficiency. Repair addition is possible for each level to be more efficient. Research result This confirms the importance of e-learning technology as a tool for increasing the efficiency of administrative processes in institutions, training, and creating more experience for participants. Thus, research gives a strong foundation for the continuation optimization of e-learning systems for efficient time registration participants and can become a guide for institutions of any other training that would like to adopt similar technology in the administrative process.

5. References

Adisel, A., & Prananosa, A. G. (2020). Penggunaan teknologi informasi dan komunikasi dalam sistem manajemen pembelajaran pada masa pandemi Covid-19. *Journal Of Administration and Educational Management*, *3*(1), 1–10. https://doi.org/10.31539/alignment.v3i1.1291

Akhmadi, A. (2021). Penerapan blended learning dalam pelatihan. *Inovasi-Jurnal Diklat Keagamaan*, *15*(1), 78–87. https://bdksurabaya.e-journal.id/bdksurabaya/article/download/214/95

Alijoyo, A. (2011). Memadukan Balance Score Card (BSC) dan Enterprise Risk Manajemen (ERM). *Center for Risk Management Studies (CRMS)*.

Asdari, A., Hady, Y., & Anwar, A. W. K. (2022). Optimalisasi pembelajaran bahasa arab di Masa Covid-19 melalui E-Learning pada prodi Non-Bahasa Arab. *Arabi: Journal of Arabic Studies*, *7*(1), 93–108. https://doi.org/10.24865/ajas.v7i1.457

Dikananda, A. R., Pratama, F. A., & Rinaldi, A. R. (2019). E-Learning satisfaction menggunakan metode auto model. *Jurnal Informatika*, *4*(2–2). https://doi.og/ 0.30591/jpit.v4i2-2.1864

Fauzih, F., Farmana, Y., & Amin, F. (2020). Optimalisasi pembelajaran "e-learning" melalui fitur Google Forms dan Add-On dalam meningkatkan efisiensi belajar mahasiswa. *Jurnal Mirai Management*, *5*(3), 148–160.https://doi.org/10.37531/mirai.v5i3.702

Juniastuti, A., Falatehan, A. F., & Muljono, P. (2018). Strategi peningkatan kualitas konten diklat berbasis E-learning pada pusdiklat anggaran dan perbendaharaan. *Jurnal Manajemen Pembangunan Daerah*, *10*(2), 18-32. https://doi.org/10.29244/jurnal_mpd.v10i2.27791

Khairani, D., Iqbal, M., Rosyada, D., Zulkifli, Z., & Mintarsih, F. (2021). Penerimaan sistem pembelajaran bahasa arab dengan e-learning dan gim di masa pandemi COVID-19. *EDUKASI: Jurnal Penelitian Pendidikan Agama Dan Keagamaan*, *19*(3), 346–361. https://doi.org/10.32729/edukasi.v19i3.958

Koessoy, H. M., Tambingon, H. N., & Rotty, V. N. J. (2022). Optimalisasi penerapan e-learning dalam pendidikan nasional berdasarkan konsep tata ruang daerah. *Cendikia: Media Jurnal Ilmiah Pendidikan*, *13*(2), 201–210. https://ejournal.iocscience.org/index.php/Cendikia/article/download/3001/2347

Original Article

Mahnun, N. (2018). Optimalisasi pengelolaan dan pembelajaran berbasis online pada lembaga pendidikan islam dalam mewujudkan World Class University. *Indonesian Journal of Islamic Educational Management*, *1*(1), 29–36. http://dx.doi.org/10.24014/ijiem.v1i1.5240

Mu'minah, I. H., & Gaffar, A. A. (2020a). Optimalisasi penggunaan google classroom sebagai alternatif digitalisasi dalam pembelajaran jarak jauh (PJJ). *Bio Educatio*, *5*(2), 378025. http://dx.doi.org/10.31949/be.v5i2.2610

Mu'minah, I. H., & Gaffar, A. A. (2020b). Pemanfaatan e-learning berbasis google classroom sebagai media pembelajaran biologi. *Prosiding Seminar Nasional Pendidikan*, *2*, 800–816.

Pamungkas, P. D. A., Win, H. A., Astuti, C. W., Silalahi, E., & Setyawati, R. K. (2020). Pelatihan daring optimalisasi pemanfaatan e-learning dalam mendukung pembuatan soal ujian daring bagi dosen. *Jurnal Karya Untuk Masyarakat (JKuM)*, *1*(2), 104–113. http://journal.starki.id/index.php/JKuM/article/download/393/273

Prawiradilaga, D. S. (2016). *Mozaik teknologi pendidikan: E-learning*. Kencana.

Putra, I. G. J. A. (2019). Adaptive Learning: Mengidentifikasi Gaya Belajar Peserta Didik Dalam Rangka Optimalisasi Sistem E-Learning Dengan Menggunakan Bayesian Network. *Jurnal Ilmu Komputer Indonesia*, *4*(2), 21–30. https://doi.org/10.23887/jik.v4i2.2773

Rahman, M. A., Amarullah, R., & Hidayah, K. (2020). Evaluasi penerapan model pembelajaran e-learning pada pelatihan dasar calon pegawai negeri sipil. *Jurnal Borneo Administrator*, *16*(1), 101–116. https://doi.org/10.24258/jba.v16i1.656

Sari, E. P., Sukardi, S., Tasrif, E., & Ambiyar, A. (2020). Optimalisasi Penggunaan E-learning dengan Model Delone dan McClean. *Journal of Education Technology*, *4*(2), 141–149. https://doi.org/10.23887/jet.v4i2.24819

Sari, Y. N. P. (2022). Strategi Peningkatan Animo Masyarakat Terhadap Sekolah Melalui Optimalisasi E-learning dalam Pembelajaran Sebagai Bentuk Inovasi Pendidikan. *Tugas Mata Kuliah Mahasiswa*, 238–248.

Sonia, N. R. (2020). Implementasi Sistem Informasi Manajemen Pendidikan (Simdik) dalam Meningkatkan Mutu Pendidikan di Madrasah Aliyah Negeri 2 Ponorogo. *Southeast Asian Journal of Islamic Education Management*, *1*(1), 94–104. https://doi.org/10.21154/sajiem.v1i1.18

Utami, N. W., Arthana, I. K. R., & Darmawiguna, I. G. M. (2020). Evaluasi usability pada e-learning universitas pendidikan ganesha dengan metode usability testing. *Jurnal Nasional Pendidikan Teknik Informatika: JANAPATI*, *9*(1), 107–118. https://doi.org/10.23887/janapati.v9i1.23663

Wulandari, H. (2017). *Optimalisasi E-learning dengan Menggunakan Metode Flipped Classroom*. https://eprints.ummi.ac.id/353/3/31.%20OPTIMALISASI%20E-LEARNING%20DENGAN%20MENGGUNAKAN%20METODE%20FLIPPED.pdf