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Implementation Of An E-Learning Media Management Strategy In The Improvement Of The Learning Performance Of Mathematics In Private Universities

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Abstract

This study aims to examine instructors' e-learning management strategies to improve student learning. This qualitative research uses descriptive methods and involves lecturers who have experience in online learning and have been successful in improving learning outcomes through e-learning. The focus of the study is on the strategies used by the instructors in the planning, implementation, monitoring, and evaluation of online learning (e-learning). The research instrument employs interview guidelines and documentation. The data collection technique used in this study is an interview with an increased focus on the presentation of e-learning on the website and the documentation of the website. Data analysis is conducted using data triangulation techniques. The findings indicate that the e-learning management strategy of the instructor includes planning by creating a learning plan on the e-learning website that includes a subset of RPS (lesson plan), learning outcomes, diagnostic

test (pre-test), module materials, learning videos, journal links related to materials, discussion forums, assignments, and absorption test (post-test). Supervision of e-learning is conducted through agreed e-learning time, monitoring via Zoom, video conference, and WhatsApp group to assess student engagement. Evaluation is done through diagnostic and absorption tests to gauge student understanding and improve higher-order thinking skills (HOTS). The website's e-learning content is evaluated using the CIPP (Context, Input, Process, and Output) model to promote continuous innovation from lecturers

Keywords: e-learning, management, universities.

A. INTRODUCTION

The progress of a nation can be indicated by the development of its education sector. Deliberate, regular, and planned educational patterns can bring about changes and development in a person's behavior. Education is not only about preparing individuals for future lives, but also for the current lives they are experiencing as they mature. One way to advance education is by implementing learning innovations.[1]

The use of information and communication technology devices can be an effective and efficient way to innovate learning. This is especially important because learning involves the transfer of various knowledge and competencies. Dr. Nasir said that the government would promote the use of e-learning methods in the university learning system to meet the challenges of the 4th industrial revolution. This policy represents the government's latest innovation in the education sector. The government will offer three options for university learning methods: conventional face-to-face, blended learning (combining face-to-face and e-learning), and e-learning.

E-learning is a process that utilizes internet technology, allowing for learning outside of the traditional classroom. There are

[1] *Corresponding author Nisak Ruwah Ibnatur Khusnul dan Aris Suharyadi, "Strategi Dosen Dalam Manajemen E-Learning Guna Meningkatkan Hasil Belajar Mahasiswa di Perguruan Tinggi," *Kelola: Jurnal Manajemen Pendidikan* 8, no. 1 (22 Juni 2021): 11, https://doi.org/10.24246/j.jk.2021.v8.i1.p34-48.

several advantages to using e-learning. For instance, students can exhibit creativity and innovation in selecting methods, sources, and media for learning. E-learning is cost-effective since there is no need for a physical building, which eliminates transportation expenses. It is also flexible in For working students, e-learning is the optimal solution as it allows for adaptation to individual circumstances.

According to Ghirardini e-learning is defined as the use of computer and Internet technologies to provide a wide range of learning and performance improvement solutions.[2] It provides extensive facilities as a solution for students who live far from campus due to limited time or resources to travel. Blackwell, Lauricella, and Wartella define e-learning as a teaching process that involves the use of electronic devices, such as computers and communications media, in the creation, development, distribution, evaluation, and facilitation of teaching and learning.The process is interactive, student-centered, and enables learning anywhere and anytime. E-learning offers the advantage of allowing students to study anywhere and anytime without the need to attend lectures on campus.

However, not all campuses in Indonesia are willing or able to adopt this approach. E-learning has not been systematically implemented on the majority of campuses in Indonesia, as only 600 out of 3600 apply e-learning methods.[3] However, more than 2000 courses with around 30 study programs have implemented e-learning. Considering the current condition of Indonesia, especially during the pandemic, it would be ideal for all campuses to adopt e-learning.

Due to the ongoing pandemic, the duration of which remains uncertain, e-learning has become a necessary means of providing educational services to all students. Regrettably, the majority of students in Indonesia are unable to study independently, which poses a challenge to their learning.

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[2] Salsabila Rohadatul 'Aisy, "Efektivitas Pembelajaran Daring Untuk Mahasiswa Di Masa Pandemi Covid-19," *Jurnal Amal Pendidikan* 2, no. 2 (1 Agustus 2021): 31, https://doi.org/10.36709/japend.v2i2.14303.

[3] 'Aisy, 44.

The government has appointed the Open University (UT) to implement e-learning lectures and increase the gross enrollment rate in higher education from 31.5 to 40 percent by 2022, in response to the demands of the revolutionary era of industry 4.0. To achieve this, UT aims to ensure the effective implementation of distance education, particularly online learning.

During the Covid-19 pandemic, UT should serve as a model for other campuses by efficiently implementing distance learning. The main obstacles in the e-learning system are access points and computer and internet literacy, which must be improved. E-learning must consider the actual situation in the field regarding hardware and brainware readiness.

In addition to UT, there are also private universities that have been at the forefront of distance learning. Prior to the Covid pandemic, Binus University had already been successfully conducting online lectures through their e-learning platform called Binus Online Learning. The majority of lectures are conducted online, eliminating the need for students to be physically present on campus.

According to Deputy Director of Binus online learning, Agus Putranto this method promotes self-learning and independent study[4]. Binus Online Learning has been in use since February 14, 2009, and is typically utilized by working students, housewives, and individuals with other commitments who are unable to attend on-campus classes. Binus has designed an online learning pattern that allows students to feel like they are studying in a classroom. This method enables students to interact with lecturers and other classmates through provided discussion forums. This lecture method is highly sought after, especially during the current pandemic situation.

Pamulang University (UNPAM) is among the many new private campuses that have implemented e-learning, following the example of UT and Binus. UNPAM aims to integrate technology into lectures through an e-learning based learning system. The university

[4] Rizqi Mediansyah Ichwan dan Pradipta Putra Abimata, "Efektivitas Pembelajaran Daring di Fakultas Teknologi Industri Universitas Islam Indonesia," *Jurnal Sains, Nalar, dan Aplikasi Teknologi Informasi* 3, no. 1 (6 Oktober 2023): 16, https://doi.org/10.20885/snati.v3i1.27.

has adopted e-learning based lecture patterns due to the continuous technological advancements in learning models. [5]UNPAM's e-learning pattern is not based on the concept of a distance lecture system, but rather used when conventional lecture meetings are not optimal. With the current Covid-19 pandemic, the focus has shifted to completely online learning.

Many universities, in addition to the three mentioned above, now facilitate e-learning.According to Naidu in Abiola, et al (2015), e-learning is defined as the intentional use of networked information and communication technology in teaching and learning. In other words, e-learning refers to distance learning that utilizes computer technology, commonly known as the internet.

According to Jethro e-learning is the use of internet technologies to enhance knowledge and performance. This refers to the provision of various solutions that improve knowledge and performance through internet technology. Innovations in e-learning technology have revolutionized education by enabling adaptive learning, collaborative learning, and changing the role of lecturers.[6]

However, this also presents challenges for lecturers who must not only master the material but also be technologically literate. Additionally, the outcomes of e-learning must be considered. The objective of online learning is to maintain or improve student learning outcomes. Therefore, universities that implement e-learning must ensure that it is distributed effectively through lecturers to facilitate innovation in e-learning.The transition from face-to-face to e-learning will undoubtedly have a significant impact on students, and as such, learning outcomes must be closely monitored and maintained at a level comparable to face-to-face learning results.

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[5] Moch. Charis Hidayat dkk., "Integration Science Technology with Islamic Values: Empowering Education Model," dalam *Proceedings of the 1st Borobudur International Symposium on Humanities, Economics and Social Sciences (BIS-HESS 2019)* (1st Borobudur International Symposium on Humanities, Economics and Social Sciences (BIS-HESS 2019), Magelang, Indonesia: Atlantis Press, 2020), 33, https://doi.org/10.2991/assehr.k.200529.202.

[6] Tajudeen Abiola dan Owoidoho Udofia, "Psychometric Assessment of the Wagnild and Young's Resilience Scale in Kano, Nigeria," *BMC Research Notes* 4, no. 1 (Desember 2011): 67, https://doi.org/10.1186/1756-0500-4-509.

The integration of e-learning into education has the potential to catalyze a shift in the application of adult learning theory. Educators will no longer primarily serve as content distributors, but will become more involved as learning facilitators and competency assessors. To attract students to learn and understand the material well, lecturers must develop new methods in e-learning. Lecturers must be innovative in creating e-learning to enhance student learning outcomes.

According toMohamad Nasir, e-learning is seen as a breakthrough to increase the Gross Enrollment Rate (APK) for Indonesian higher education, which is currently at 34.58 percent. The need to balance the e-learning system with increasing the capacity of lecturers was also emphasized by the minister. The current audience of students consists of millennials and generation Z, which requires lecturers to enhance their scientific competence and adopt innovative teaching methods.

As per Clark, R. C., & Mayer e-learning is defined as instruction delivered via computer through CD-ROM, internet, or intranet, with the following features: The content must be relevant to the learning objectives, and instructional methods such as examples and practice should be used to aid learning. Media elements such as words and pictures should be utilized to deliver the content and methods. The goal should be to build new knowledge and skills linked to individual learning goals or to improve organizational performance.[7]

Koswara presented the new skills lecturers need for e-learning, which include understanding e-learning, identifying student characteristics, designing and developing interactive lecture materials according to new technological developments, adapting teaching strategies to deliver materials electronically, organizing materials in a format that is easy to learn, conducting training and practice electronically, and ideally being involved in planning, developing, and making decisions.

[7] Ruth Colvin Clark, Richard E. Mayer, dan Will Thalheimer, "E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning," *Performance Improvement* 42, no. 5 (Mei 2003): 86, https://doi.org/10.1002/pfi.4930420510.

It is important for lecturers to possess these skills to effectively deliver e-learning. Finally, it is important for lecturers to evaluate the success of their students in terms of learning, attitudes, and perceptions. This evaluation should be objective and free from any subjective evaluations.

This section refers to the problem formulation of this research, which investigates how lecturers formulate management strategies in e-learning to improve the learning outcomes of students. The process includes the planning, implementation, supervision and evaluation of lecturers. E-learning has been in use for a long time, and many lecturers have competence in the effective learning methods offered. Aims at identifying faculty e-learning management strategies, including planning, implementing, monitoring, and evaluating, for improving student learning outcomes in higher education.

The success of learning can be determined by observing the behavior of lecturers and students in the classroom or the learning environment. These lecturer behaviors are assumed to be general behaviors, which include speed, feedback, and providing examples. Students assume that the level of instruction is related to the general behaviors of the instructor used in learning basic skills, as opposed to teaching specific strategies. The students perceived that certain general behaviors of the lecturer were linked to better learning outcomes. These behaviors included tolerance for diverse responses, emphasis on process rather than product, and opportunities to think at higher levels.

B. METHOD

This research utilizes a descriptive qualitative approach. Sugiyono explains in his book that qualitative research is a method.[8] The research subject, as defined by Suharsimi, is the object, thing, or person to which the data for the research variable is attached and is at issue. In research, the research subject plays a strategic role as it provides data on the variables being observed. This study focused

[8] P Ginting dan S H Situmorang, *Filsafat Ilmu Dan Metode Penelitian* (Medan: Universitas Sumatera Utara Press, 2006), 33.

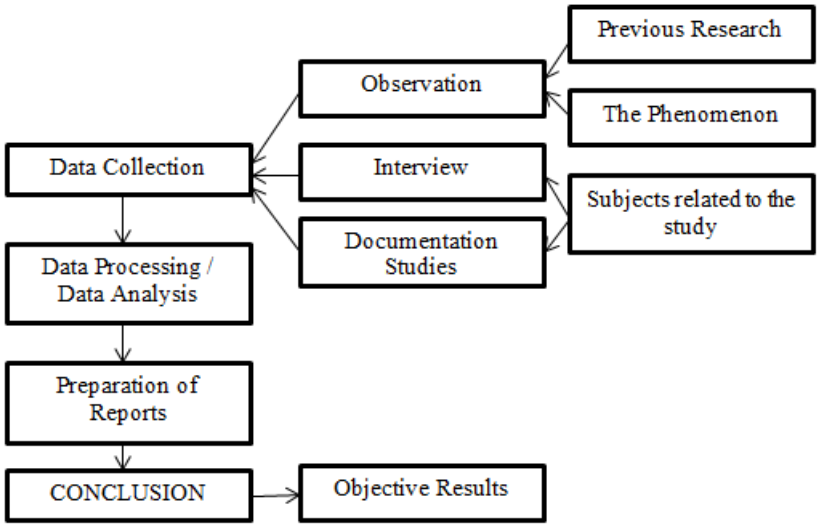
on lecturers who had implemented e-learning for three years at universities that employed blended learning.[9]

Data was collected through observation, surveys, and interviews with the research subjects. Initially, observations and surveys were conducted during discussions about the e-learning website's content. However, this research focuses on in-depth interviews with research subjects about the planning, implementation, supervision, and evaluation process of e-learning lecturers to enhance student learning outcomes in higher education.

According to Esterbers, as quoted by Sugiyono (an interview is a meeting between two individuals to exchange information and ideas through questions and responses, resulting in communication and the joint construction of meaning beyond a particular topic. In other words, an interview can be interpreted as a means of exchanging information and ideas through questions and answers, with the goal of constructing meaning on a particular topic. This research employed in-depth interviews with a structured format.

According to Sugiyono (2012), data analysis is the systematic process of compiling and organizing data obtained from interviews, field notes, and documentation. This involves categorizing and breaking down the data into units, synthesizing it, identifying patterns, and selecting important information to draw conclusions that are easily understood by both the author and the reader.

[9] Khusnul dan Suharyadi, "Strategi Dosen Dalam Manajemen E-Learning Guna Meningkatkan Hasil Belajar Mahasiswa di Perguruan Tinggi," 33.



Graphic 1. Qualitative Descritive Method

C. RESULT & DISCUSSION

Universities are expected to adapt their teaching processes to the latest technological developments in the era of the Fourth Industrial Revolution. Improving the qualifications and skills of lecturers to compete in international classes is a major focus. E-learning has been implemented in various Indonesian universities, and it is hoped that more universities will adopt this system. E-learning is a form of distance learning that should be engaging and effective to ensure that students can absorb the material as well as they would in a classroom environment. By analyzing data from one or two semesters, instructors can develop management strategies for planning, implementing, monitoring, and evaluating e-learning programs to improve student learning outcomes in higher education.

When planning activities, educators begin by determining learning objectives. The objective is what they aim to achieve after the learning process. Learning is a process that involves both students

and educators. Therefore, to ensure a quality and effective learning process, planning is necessary.

Learning planning involves decision-making based on rational thinking. This fragment discusses the creation of learning tools by educators for specific learning goals and objectives, as well as changes in student behavior after learning. It also mentions the application of these tools in higher education and e-learning. It is important to differentiate between innovations and improvements in face-to-face learning tools and those in e-learning to ensure clarity for students.

Nisak and Heri stated in their research that teachers create a set of learning to guide them in the teaching process. This set of learning provides direction and goals to be achieved by explaining the material as a whole during one semester. This helps students prepare mentally and materially for what will be taught during the semester. Similarly, lecturers, as teachers, must create e-learning plans, learning outcomes, and materials for one semester.

When planning e-learning, it is important for lecturers to consider several factors to make the content and features attractive to students. Additionally, technical terms should be explained when first used, and the language should be formal, objective, and value-neutral. The website should include the lecturer's name, contact information, and relevant details such as lecture descriptions, main topics, learning objectives, and the semester learning plan (RPS). It is crucial to ensure a clear and logical structure of information with a causal connection between statements. The website should include the lecturer's name, contact information, and relevant details such as lecture descriptions, main topics, learning objectives, and the semester learning plan (RPS). When preparing the website, it should be organized in a neat and attractive manner. This will prevent students from getting bored while learning from the material during a semester of e-learning.

The Learning Outcomes feature includes the objectives that students must understand after receiving material from modules and videos. By providing learning outcomes, students will know what the objectives of the material are and can focus on achieving them.

Lecturers should clearly describe the learning outcomes by adjusting the material per chapter.

Figure 1. Course Description

Meanwhile, this diagnostic test is used to assess students' initial abilities before receiving the material provided by the lecturer. It is similar to a pre-test, which evaluates students' abilities before they understand the material, and serves as a benchmark for their achievements.

Additionally, the video feature is a special attraction for students as it provides a visual medium in lieu of face-to-face contact. Therefore, instructors must be capable of producing videos to enhance the material presented through e-learning. It is important to keep the videos concise to avoid monotony and boredom. This video serves as an introduction to the material before students delve into the module.

The module itself contains the core material covering the chapters or themes that students will study. Each university's modules are customized to meet their specific needs and characteristics. The material is organized to facilitate e-learning for students. Additional features such as external institutions, news, or opinions related

to the material are included to enhance its relevance to everyday life. The hope is that these external resources will aid students in implementing the material and retaining their understanding.

The provided link contains journals that are relevant to the material. One advantage of this feature is that students can read the lecturers' writing, allowing them to benefit from our journal. Additionally, students can better understand the material presented in the journal, including data and research objectives.

Figure 2. Video e-learning

Discussion boards are a valuable learning feature that students eagerly anticipate, providing a platform for discussion and expression of opinions on topics that may not be fully understood from the course material. The lecturer's role is to facilitate discussions, moderate them, and supervise the progress of students' opinions and arguments. This allows the lecturer to also act as a teacher in the discussion forum.

The independent assignment feature is related to material that has been explained and understood in e-learning. This is the

lecturer's assessment of the student's ability to master the material. The assignment consists of open questions that require higher order thinking skills (HOTS).

The Absorption Quiz is the final feature for students in the e-learning and is designed as a post-test to determine student achievement after watching videos, studying material, and participating in discussions.

Based on the pictures and design explanations provided, lecturers can collaborate with their colleagues who teach the same courses to ensure consistency in the preparation of e-learning tools. It is important to maintain a balanced approach and avoid biased language, as effective coordination among course instructors facilitates the development of innovative and effective learning plans. The text is grammatically correct and follows a clear and logical structure.

According to Coulter planning is a process that involves setting organizational goals, determining strategies to achieve those goals, and formulating a comprehensive planning system to integrate and coordinate all organizational work towards achieving those goals.[10]

George R. Terry defined actuating as the process of motivating all group members to willingly and harmoniously strive towards achieving objectives in line with managerial planning and organizing efforts. This involves arousing and encouraging group members to work towards goals with sincerity.

The above definition indicates that the achievement of the goal depends on the performance of all members of the management group, from top to lower levels. All activities must be directed towards the target, as activities that do not contribute to the target are a waste of resources. In connection with the theory mentioned above, once the lecturer has properly designed the e-learning website during the planning process, the next task is implementation to apply it to students.

[10] Khusnul dan Suharyadi, 10.

Figure 3. e-learning

However, no matter how well the system is built or how user-friendly the interface is, it will not be effective for online lectures if the users, namely students and lecturers, are not proactive in using it Success in e-learning depends on the lecturer's content design. It is important for students to establish a positive relationship with the lecturer and engage with the presented material. Lecturers may use rewards and punishments to enhance the quality of learning and encourage students to follow their instructions and recommendations.

Nugroho defines rewards as an incentive that is intended to motivate an individual to improve or increase his or her performance.[11] Similarly, Nawawi suggests that rewards are given to promote a sense of recognition and acceptance in the workplace, which encompasses both compensation and interpersonal relationships among colleagues.

[11] Khusnul dan Suharyadi, 33.

In this e-learning program, for easier access to UTS or UAS questions, the instructors provide incentives in the form of extra grades and stars. The goal is to encourage students to be enthusiastic and engaged in the use of e-learning, especially in the understanding and mastery of the material. This statement is in line with Handoko's (2013) theory of rewarding functions, which includes strengthening motivation, encouraging oneself to achieve goals, and signaling that someone has more abilities.

In e-learning implementation, students may also face punishment to balance the rewards and encourage participation. According to Rumiris punishment serves three important functions in shaping expected behavior: limiting behavior, preventing repetition of undesirable behavior, and providing education that strengthens motivation to avoid such behavior.

In e-learning, lecturers may provide punishment by reducing the value of assignments to motivate students to continue learning and better understand the e-learning process. One possible disciplinary measure could be to mark a student as absent if they do not actively participate in the discussion, which would encourage students to participate in discussions and better understand the material in an e-learning environment.

The achievement of maximum learning is not solely dependent on the design and implementation of an e-learning website by the instructor. It is also important for the instructor to monitor whether the students' planning and execution are able to achieve the desired goals. To ensure maximum effectiveness, there must be collaboration between the academic institution providing the e-learning platform, the instructor, and the students. As stated by Robbins and Coulter Management involves coordinating and overseeing the work activities of others to ensure efficient and effective completion[12].

According to Nisak and Heri their research suggests that organizing with teaching methods involving direct student practice

[12] Ulfatun Hasanah, "Kontribusi Pemikiran Auguste Comte (Positivisme) Terhadap Dasar Pengembangan Ilmu Dakwah," *Al-I'lam: Jurnal Komunikasi dan Penyiaran Islam* 2, no. 2 (30 Maret 2019): 31, https://doi.org/10.31764/jail.v2i1.1261.

leads to better understanding of the material. They also utilize IT tools such as YouTube to assist students who are struggling. To ensure comprehensibility, technical abbreviations are explained when first used. The text is free from grammatical errors, spelling mistakes, and punctuation errors.[13] No changes in content have been made beyond ensuring that the text adheres to the desired characteristics. In line with this theory, instructors in e-learning coordinate and supervise the learning process by involving all students in problem-solving and linking the material to everyday life. In addition, instructors use a variety of media, including YouTube, Zoom, Classroom, and WhatsApp groups, to facilitate the learning process.

Media can enhance and reinforce e-learning discussions. For instance, during a Zoom meeting, students can engage in two-way communication, discuss, and ask questions directly, just like in a face-to-face meeting, but online. Zoom has become a popular tool in education due to its ease of accessibility and the ability to adjust to the desired time and data usage of both professors and students. Another option for continuing discussions is to create a temporary group via WhatsApp or Classroom. This will make it easier for students to ask for solutions or raise any unresolved issues that may arise during Zoom or website sessions.

It is true that e-learning platforms such as Zoom, Classroom, and WhatsApp can be accessed through personal mobile phones, making it more convenient and effective. If a student or lecturer is occupied with other tasks and cannot use a laptop, all of the aforementioned platforms can be accessed through a mobile phone. Therefore, there is no reason for a student to miss out on e-learning due to the lack of a laptop, as all platforms can be accessed through a mobile phone. The only challenge here is to provide adequate internet quota. Suheri explains in his journal that 'With the existence of Zoom Meeting and Google Classroom applications for online learning media.' The use of Zoom Meeting and Google Classroom applications can be done

[13] Nisak Ruwah Ibnatur Husnul dan Heri Retnawati, "Manajemen kelas dalam pembelajaran matematika di SMA Negeri Yogyakarta," *Jurnal Akuntabilitas Manajemen Pendidikan* 5, no. 2 (10 Oktober 2017): 55, https://doi.org/10.21831/amp.v5i2.15655.

on smartphones.'

In the e-learning process, lecturer evaluation of student understanding is determined through the use of a diagnostic pretest and absorption post-test. In the e-learning process, lecturer evaluation of student understanding is determined through the use of a diagnostic pretest and absorption post-test. These tests serve as indicators of student achievement. Additionally, each meeting includes an independent assignment with open-ended questions designed to improve students' higher-order thinking skills (HOTS). These independent tests and assignments allow students to assess their abilities before and after receiving online learning. While these tests are not the only means of evaluating student achievement, another alternative could be to evaluate the context, input, process, and output in the website design created by the lecturer.

Deficiencies or improvements in maximizing e-learning content on the website should always be addressed. Additionally, innovation from lecturers should be sought. It is important to note that evaluation is distinct from assessment, measurement, or test.

The function of evaluation is to provide valid and reliable information regarding policy performance, specifically how far needs, values, and opportunities have been achieved through public service actions. Evaluation contributes to clarifying and critiquing the values underlying goal and target selection. Values are clarified by defining and operationalizing goals and targets.

Values are also critiqued by systematically questioning the appropriateness of goals and targets in relation to the problem being addressed, which allows for the analysis of alternative sources of value.

The lecturer's website has been tested for online learning over the course of two semesters or one year. Student performance can be evaluated based on their grades and completion time for assigned questions. The website's design plays a crucial role in improving student results. This aligns with Stuffebeam's CIPP model for program evaluation, which emphasizes the importance of improving rather than proving. The model's focus is on enhancing

program effectiveness through continuous evaluation. The CIPP evaluation concept suggests that the primary goal of evaluation is not only to demonstrate but also to enhance. CIPP can be utilized in various fields, including education, management, and companies.In education, Stufflebem categorized educational systems into Context, Input, Process, and Product.

The purpose of input evaluation activities is to facilitate decision-making, identify sources, select alternatives, develop plans and strategies to meet needs, and establish work procedures to achieve them. The information and data collected can be used to determine sources and strategies within existing limitations. The components of input evaluation include human resources, supporting facilities and equipment, budget funds, and necessary procedures and rules.

Stufflebeam defines process evaluation as an ongoing check on the implementation of a plan, including documentation of the process, changes in the plan, and key discrepancies. Stufflebeam defines process evaluation as an ongoing check on the implementation of a plan, including documentation of the process, changes in the plan, and key discrepancies. Stufflebeam defines process evaluation as an ongoing check on the implementation of a plan, including documentation of the process, changes in the plan, and key discrepancies. It involves examining the execution of certain procedures.

Finally, product evaluation is an assessment conducted to measure success in achieving predetermined goals. The resulting data will determine whether the program is continued, modified, or stopped. In this case, the e-learning

D. CONCLUSION

The research findings indicate that instructor management strategies include planning. Specifically, plans are created for e-learning on the website. These plans include Semester Learning Plan subdisplays, learning outcomes, diagnostic tests (pretest), module materials, instructional videos, journal links related to material, discussion forums, assignments, and absorption tests (posttest).

The implementation should focus on helping students understand modules and videos to solve material problems through discussions in forums. Supervision should be carried out using the agreed e-learning time and through Zoom media, telephone conferences, and WhatsApp groups to monitor student activity and progress in e-learning. Evaluation of student achievement in e-learning material is carried out through diagnostic and absorption tests. This is followed by independent assignments with open-ended questions that aim to increase higher-order thinking skills. To maximize e-learning content on the website, the evaluation is conducted using the CIPP (context, input, process, output) model. This ensures that innovation from lecturers is always increasing

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