Moodle E-learning to Improve Motivation and Learning Activities at Green Campus

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A R T I C L E   I N F O

A B S T R A K

Banyak mahasiswa merasa kesulitan dalam memanfaatkan e-learning seperti presensi, interaktif perkuliahan, mengirim tugas, akses materi dan ujian, semestinya mahasiswa melalui e-learning menjadi lebih terbantu aktivitas dan prestasinya. Penelitian ini bertujuan menganalisis dan mengevaluasi E-learning Moodle dalam meningkatkan motivasi dan aktivitas belajar di kampus hijau. Penelitian ini menggunakan pendekatan mixed method dengan desain explanatory sequential design, sampel yang terlibat 221 orang. Alat pengumpul data menggunakan kuesioner, wawancara, dokumentasi, dan analisis data dengan statistik regresi. Kesimpulan penelitian menunjukan adanya perubahan aktivitas belajar mahasiswa di green campus melalui penerapan e-learning moodle dengan pengaruhnya cukup signifikan. Perubahan terhadap motivasi berprestasi mahasiswa juga dipengaruhi oleh penerapan moodle e-learning dengan pengaruh cukup signifikan. Penelitian ini berimplikasi bahwa untuk meningkatkan seluruh aktivitas dan motivasi berprestasi mahasiswa dalam belajar dan tidak hanya listening activities, dosen agar memanfaatkan e-learning moodle dengan baik dan menarik, dan kepada universitas agar dalam pengembangan elearning kedepan pengguna diajak aktif berpendapat dalam perancangan tampilan dan isinya.

A B S T R A C T

Many students struggle to use e-learning for attendance, interactive lectures, assignment submission, and access to resources and tests. E-learning is said to benefit students in terms of activities and accomplishments. This survey aims to analyze and evaluate the Moodle E-learning role in enhancing motivation and learning activities at Green Campus. A mixed-method method with an explanatory sequential design is used in this investigation. This study included 221 participants. Questionnaires, interviews, and documentation are used to collect data. The statistical regression method was then used to assess the research data. The study's findings indicate that the variable e-learning platform Moodle has a substantial influence on student learning activities at Green Campus. This variable has a major impact on changes in student accomplishment motivation. According to this research, lecturers must make good and fascinating use of the Moodle e-learning platform to boost all activities and student achievement motivation in learning, not just listening activities. Furthermore, universities should be able to ask users to actively participate in developing the design and content of future e-learning developments.

1. INTRODUCTION

E-learning media technology is prevalent in the 4.0 age, particularly in industrialized countries, because practically all developed countries employ application systems (Cloonan et al., 2020; Garad et al., 2021; Koderi, Maulana, & Prasetyo, 2019). The US government has also encouraged universities to employ e-learning courses during the last decade, arguing that it allows students to explore educational content based on their interests and at their speed (Dabbagh et al., 2019; Dunn & Kennedy, 2019). The use of technology is very much in tune with modern learning. It encourages learning that can be done anytime, anywhere, according to a poll conducted at public colleges in the United States (Dabbagh et al., 2019). Therefore, online lectures are common in developed countries (Halim, 2020; Huang et al., 2011). Since the previous few years, e-learning has become a need in the education sector in higher education in Indonesia; therefore, online lectures are not solely the result of the Covid-19 outbreak. The University of Illinois at Urbana-Champaign pioneered e-learning using a computer-assisted teaching system and a computer known as PLATO (He et al., 2018).

Furthermore, education is an expensive but necessary investment for every human being. The development of E-learning applications demonstrates the potential to provide education at a lower cost (Koderi, 2018a; Luckyardi & Rahman, 2021; Wulandari et al., 2020). E-learning also allows for flexibility in terms of study time and location (Agbenyegah & Dlamini, 2019; Pham et al., 2019). E-learning lectures can be delivered at predetermined times, but they can also be changed without interfering with other tasks. E-learning lectures can

be held anywhere; students do not need to gather in person but can attend lectures in their respective areas. Because lectures in traditional classes that must be gathered in one room have been replaced by E-learning via the internet network and multimedia technology. It is possible to prevent the excessive use of fuel and paper while also reducing student tuition costs, transportation, and boarding costs (Febriani et al., 2020). The main reasons are effectiveness and flexibility, E-learning as a future lecture system, and the advancement of technology.

E-learning lectures are delivered without face-to-face interaction and can be delivered at any time and location. Online lectures via the internet are expected to provide education to anyone, anywhere, and at any time (Apuke & Iyendo, 2018; Sarrab, 2019). E-learning is derived from electronics (digital devices) and learning (learning). E-learning is a lecture or education process that uses PDAs, pocket PCs, or cellular telephone devices (Korucu & Alkan, 2018; Mpungose, 2020). E-learning is a lecture activity in which everyone participates using digital devices and cell phones. Traxler defines E-learning as a lecture in which the communication process is carried out via cell phones, Android, smartphones, digital devices (PDAs), and other devices such as tablets or laptop computers (Paulins et al., 2019; Traxler, 2015). Furthermore, Paulins et al. believe that E-learning is an online lecture process that uses computer devices, cellular as the medium (Paulins et al., 2019). Moodle, Schoology, Google Classroom, Edmodo, Zoom Meeting, and other E-learning applications help with the online lecture process (He et al., 2018; Ramadayanti & Adzima, 2022).

To do online learning, moodle is one way to increase the effectiveness of student learning. Students using Moodle can access various learning materials and interact with teachers and peers, ensuring that learning does not become static (Gamage et al., 2019; Xiao, 2020). Moodle has some features that can help with online learning activities. Moodle supports various activities, including videos, discussion forums, materials, chats, and quizzes (Gamage et al., 2019; Paragină et al., 2011; Sahoo et al., 2020). Moodle, an E-learning platform, is widely used by universities worldwide, including UIN Raden Intan Lampung's green campus. The use of the Moodle E-learning platform is extremely beneficial for students and the teaching team or lecturers at green campus because it allows them to continue carrying out lecture activities. Since the end of 2019, Campus has been developing the Moodle E-learning platform under the name Raden Intan E-learning to support the green campus program. This E-learning aligns with the green campus program, which is a campus that implements low-emission energy efficiency, conserves resources, and improves environmental quality by educating its citizens to live healthy lifestyles and sustainably create a conducive learning environment.

The green campus program is in line with the world's demands today, which is confronted with environmental challenges related to climate change and global warming, so sustainability quickly transforms from a simple issue to an important program. Green campus initiatives, such as waste reduction, energy efficiency, water conservation, a healthy work environment, and clean indoor air, must be implemented through E-learning (Anthony Jnr, 2021). E-learning uses technology as an effective solution for an active, self-directed, high-quality, and long-term learning process (Abbasi et al., 2020; Garad et al., 2021; Priatna et al., 2020). Lectures on the green campus using the Moodle E-learning platform are required. The lecture process abruptly shifts from traditional to online, significantly impacting students and lecturers. Students must learn more independently, students must maintain learning activities, and lecturers must be able to use E-learning and other lecture media to assist the lecture process and guidance (Kurtz et al., 2014; Virgiawan et al., 2018). Furthermore, a higher education lecture program is said to be effective if it has the following indicators. First, it can assist students in achieving the abilities that have been formulated in the achievements of graduates and achieve courses. Second, it can encourage students to be active in achieving the knowledge and skills occupied in lectures. Third capable of retaining students on lecture materials. Fourth, students can implement and communicate all of their knowledge and skills in real life (Koderi, 2018).

Based on the findings of a pre-research survey of 65 random respondents conducted across several faculties at Raden Intan Green Campus, particularly among students in semesters 2, 4, and 6, 76% of students attended lectures via E-learning. However, many students (57.7%) still struggle to fill out attendance forms, send assignments, and understand the material. On the other hand, students consider the lecture process via E-learning to be more beneficial during the pandemic (55.6%). According to the subject's characteristics, 74.6% of lecturers use E-learning. This data demonstrates that lectures at Raden Intan Green Campus used the Moodle e-learning platform. However, student activities did not function as intended, affecting student motivation to attain learning goals. E-learning is a lecture procedure that uses a computer or mobile device as a medium to allow students to participate in every lecture at any time and from any location.

The researcher believes it is necessary to analyze and evaluate the E-learning platform Moodle so that the university, faculties, and study programs have valid data about the effectiveness of E-learning on learning activities and student achievement motivation. The findings will establish electronic lectures (E-learning) and remote learning regulations during the new normal, following the expectations of the 4.0 era and green campus university program. The world is currently approaching the fourth industrial revolution, often known as the

industrial revolution 4.0, in which technology has become a basic need of human life, and everything has been unrestricted by location, time, and distance due to the use of the internet and digital technology (Dito & Pujiastuti, 2021; E. Fatmawati & Safitri, 2020; Khairani et al., 2020). This situation is relevant to lectures during the pandemic and the new normal era (Koderi, Maulana, Hijriyah, et al., 2019). On the other hand, building the reliable element of an e-learning application system in a tertiary institution must be pursued on an ongoing basis, as it is one of the main aspects in the successful deployment of e-learning in boosting the efficiency and effectiveness of learning. Time savings, cost savings, greater student participation and motivation, technology advancement, and staff development are all factors in the dependability of e-learning application systems (Egielewa et al., 2022; Priatna et al., 2020; Renaldi et al., 2022).

Previous studies still discovered questions about the use of E-learning in higher institutions; however, introducing technology into the learning process in tertiary institutions immediately guarantees students have good activity and achievement motivation in learning (Samir Abou El-Seoud et al., 2014; Timbi-Sisalima et al., 2022). Other research show that learning achievement increases when certain e-learning-based learning models are used, but learning motivation does not (Behl et al., 2022; Huang et al., 2017). Therefore, more research is needed to determine whether there is a link between learning motivation and e-learning and learning achievement (C. S. J. Huang et al., 2017). Donkin's research compared traditional learning and E-learning to student learning activities and found that E-learning had a pattern of improving scores in student learning activities (Donkin & Askew, 2017). E-learning has a beneficial effect on outcomes because when strong teaching is combined with the correct E-learning technology, students are more likely to benefit and move about and learn in a way that feels more natural to them (Tîrziu & Vrabie, 2015; Urh et al., 2015). The widespread use of new technologies such as the internet, social networks, and mobile phones (E-learning) impacts the educational process at universities. This study aims to analyze and evaluate the E-learning platform Moodle in enhancing student enthusiasm and learning activities at the green campus university program.

2. METHOD

This study employs a mixed-method approach that combines quantitative and qualitative methods. Mixed research combines data collection, processing, and statistical analysis with qualitative data investigation (Nadila et al., 2021). The quantitative descriptive research method involves researching to ascertain the value of one or more variables without comparing them to other variables. The research strategy utilized is an explanatory sequential design. The research begins with a quantitative stage, followed by a qualitative step to explain the quantitative results in greater depth (Mikalef et al., 2019). Researchers conducted a survey collecting data from natural (rather than man-made) settings. The major data collection technique for this survey research was a questionnaire distributed to a preset sample based on the study population (Story & Tait, 2019). The population in this study consisted of 3866 students from the Faculty of Tarbiyah and Teacher Training, the Faculty of Ushuludin and Religion, the Faculty of Sharia, the Faculty of Da'wah, and the Faculty of Islamic Economics and Business at UIN Raden Intan Lampung. However, researchers limited the target sample members to 221 people, or 6% of the population.

Convenience sampling is a sampling strategy based on the ease of Access to the topic. Because of the ease with which researchers conduct and relate to participants, this is commonly referred to as convenience sampling. Researchers have almost no authority to select sample elements, which are chosen solely based on proximity rather than representativeness. Convenience sampling, a non-probability sampling method, was employed to obtain feedback since it saves time and money (Widiastuti, 2019). To collect data, researchers employed 1) a questionnaire, an instrument or tool used to investigate a person's behavior, both what he has experienced and knows. The questionnaire consists of a set of questions that are posed to each research subject. This questionnaire collected student responses to E-learning Moodle, learning activities, and student achievement motivation during the pandemic. 2) Interview, as one of the data collection strategies, to get information, an overview of respondents or informants' experiences (subjects who will be asked for information). This method is carried out to record the lecture process by lecturers and learning activities, as well as student achievement motivation during lectures using E-learning such as online length, the accuracy of assignment submission, liveliness of discussion, and others. 3) This study used documentation to extract data, such as student information, learning materials, learning activities, learning tools, and learning outcomes. Questionnaires on Moodle e-learning variables, learning activities, and student achievement motivation are based on the theoretical-based instrument grid presented in Table 1.

Table 1. Grid of the Questionnaire

Variables	Indicators	Sub-indicators
E-learning Moodle	Display	1. Draft Moodle product system design, 2. The display attractiveness, 3. Image clarity on the application, 4. Size of the texts on the app, 5. The background color and text in the application, 6. The attractiveness of the display of other activities.
	Content	7. The ease of selecting language, 8. The ease of signing in, 9. The ease of signing out, 10. The speed of loading the process of each feature, 11. The ease of choosing faculties, study programs, and courses, 12. The ease of seeing the List of courses per faculty/department, 13. Task data upload speed, 14. Download speed of lecture material data, 15. Access speed in doing the task, 16. Speed of access to know the results of the task, 17. The ease of viewing notifications, 18. The ease of commenting.
Learning Activities	Visual Activities	1. Joining online meetings, 2. Reading teaching materials, 3. Chatting and interactive discussion, 4. Doing and submitting assignments, 5. Working on test questions, 6. Checking test results.
	Oral Activities	7. Having face-to-face discussions online, 8. Presenting, 9. Answering the lecturer's questions, 10. Material reading skills.
	Listening Activities	11. Listening to lectures, 12. Listening to friends' presentations, 13. Listening to reading material from lecturers and friends, 14. Listening to the discussion.
	Writing Activities	15. Writing a college assignment paper, 16. Writing interactive assignments online in Moodle, 17. Writing comments in the chat room.
	Motor Activities	18. Doing exercises, 19. Conducting group discussions, 20. Carrying out practical activities, 21. Playing games.
	Mental Activities	22. Responding to questions from lecturers and discussion partners, 23. Presenting thoughts and ideas in lecture discussions, 24. Analyzing problems in the field according to the disciplines studied.
	Emotional Activities	25. Being happy and content in learning activities, 26. Being enthusiastic in lectures and assignments, 27. Being nervous and sad in lectures, 28. Being stressed in lectures.
Achievement Motivation	Responsibility	1. Hard work, 2. Responsibility, 3. Achievement of goals, 4. Become one with the task.
	Accomplished Achievement	5. Drive to succeed, 6. Feedback, 7. Trying to excel.
	Self-development	8. Skill improvement, 9. Desire to progress,
	Independence	10. Work independently, 11. Likes challenges.

Furthermore, the research instruments were examined for validity using the Product Moment (Pearson) correlation calculation. The SPSS version 21 application was employed for the determination test, with the test requirements being that the $r_{oberved}$ value must be equal to or greater than the $r_{critical}$ value of 0.444. If the result is less than expected, the instrument item is discarded. The respondents that tested the research instrument were from outside the research sample, 20 students of Arabic language education, so the r table value of the device was re-tested to carry out the reliability test. Then the data was obtained using the Spearman-Brown method (Split half) (Baumgartner, 2018).

As previously stated, this study employed an explanatory sequential design, which means the research initially begins by constructing a quantitative stage. In this research, the researchers used regression analysis to test the hypothesis and followed up on more specific results with a qualitative stage to explain these quantitative results in greater depth. The Miles and Huberman model was used in the qualitative analysis stage, which includes data reduction, data display, and conclusion (Kholili & Fajaruddin, 2020).

3. RESULT AND DISCUSSION

Result

E-learning platform Moodle is a distance learning model that involves the use of the internet and the communication process using mobile phones, Android, smartphones, computers or laptops, and digital tools, which can be done at any time, from any location, and is material-immersive. Visual text, video, discussion forum, assignment, chat, quiz, and other formats are available. The 20-item questionnaire administered to 221 students yielded an upper limit value of 118 and a lower limit value of 83. Moodle E-learning at Raden Intan green campus has a rating of 70.1%, indicating moderate quality. Quality Classification of Raden Intan Green Campus Moodle E-learning showed in Figure 1.
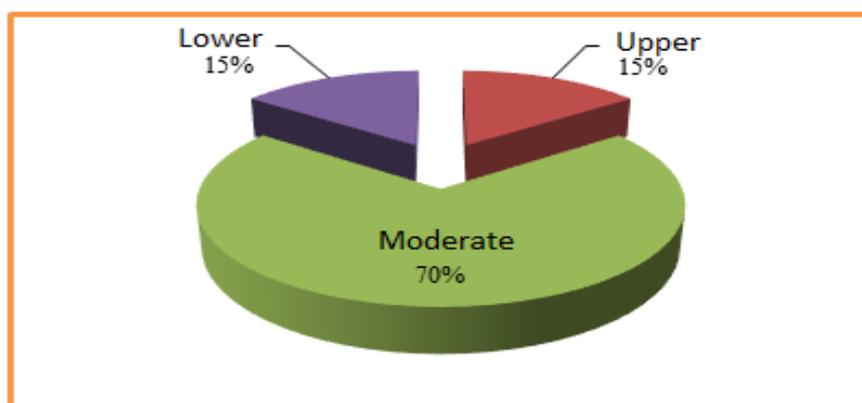

Figure 1. Quality Classification of Raden Intan Green Campus Moodle E-learning

According to this data, the average proportion of Moodle E-learning at Raden Intan Green Campus is higher in the content aspect indicator, 67%, and in the display aspect, 65.6%. These results indicate that the Moodle E-learning at Raden Intan Green Campus has the same appearance and content as well as acceptable performance. These findings show that the quality of Moodle E-learning at Raden Intan Green Campus needs to be upgraded to be ideal in terms of appearance and content.

Furthermore, the calculation establishes the upper and lower limits for the variable level of student learning activities at Raden Intan Green Campus based on the responses of respondents using a three-point scale. The score analysis yielded an upper limit value of 133 and the lower limit value of 94. According to the findings, 68.3% of Raden Intan Green Campus students have a moderate learning activity, 16.7% have a high learning activity, and 14.9% have a low learning activity. These findings reveal that Raden Intan Green Campus students' learning activities are generally moderate. These findings show that Raden Intan Green Campus students' learning activities need to be modified again to be more optimal. The Classification of Learning Activities at Raden Intan Green Campus showed in Figure 2.
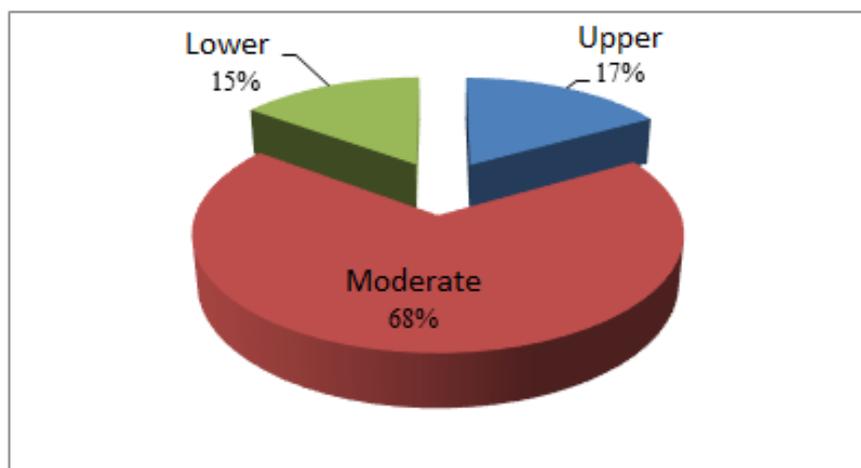
Figure 2. The Classification of Learning Activities at Raden Intan Green Campus

Variable indicators of student learning activities at Raden Intan Green Campus are listening activities (68%), emotional activities (65%), visual activities, oral activities, motor activities (64.9%), writing activities, drawing activities, and mental activities (64,7%). Therefore, more listening activities are shown in the learning activities of Raden Intan Green Campus students through Moodle E-learning lectures. Testing the first hypothesis using regression analysis to determine the effect between variables, namely the effectiveness of Moodle E-learning on Raden Intan Green Campus student learning activities.

Based on the results of data analysis, it was found that the effectiveness of E-learning on Raden Intan Green Campus student learning activities is 0.623, or it can be said that changes in student learning activities are affected by the Moodle E-learning variable of only 62.3% (moderate). Furthermore, the results of testing the significance of the effectiveness of Moodle E-learning on the learning activities of Raden Intan Green Campus students showed in Table 2.

Table 2. The Significance of the Effectiveness of Moodle E-learning on Student Learning Activities

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13458.847	1	13458.847	361.200	0.000
	Residual	8160.267	219	37.261		
	Total	21619.113	220			

Based on the calculation results in table 2 about testing the significance of the effectiveness of Moodle E-learning on the learning activities of Raden Intan Green Campus students, it is known that the value is smaller than the sig. level, namely 0.05 or 0.000 < 0.05. Therefore, the hypothesis in this study is accepted. These results can be interpreted that Moodle E-learning significantly affects students' learning activities at Raden Intan Green Campus. Furthermore, the researchers tested the second hypothesis using regression analysis to determine the effectiveness between variables, namely the effectiveness of Raden Intan Green Campus Moodle E-learning on the achievement motivation of Raden Intan Green Campus students. Based on the results of data analysis, it was found that the effectiveness of Moodle E-learning at Raden Intan Green Campus on student achievement motivation is 0.776, or changes in student achievement motivation are influenced by the Moodle E-learning variable at Raden Intan Green Campus by 77.6%, which is classified as moderate/sufficient. The impact of Moodle E-learning on the achievement motivation of Raden Intan Green Campus students showed in Table 3.

Table 3. The Effectiveness of Moodle E-learning on Student Achievement Motivation

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41140.782	1	41140.782	760.408	0.000
	Residual	11848.684	219	54.104		
	Total	52989.466	220			

Table 3 presents the results of the Moodle E-learning significance test at Raden Intan Green Campus on student achievement motivation. A value smaller than 0.05 was obtained (0.000<0.05). Thus, the second hypothesis in this study is accepted. It can be interpreted that Moodle E-learning significantly affects Raden Intan Green Campus student achievement motivation.

Discussion

E-learning Moodle is a distance learning paradigm that involves the use of the internet and the communication process using the media of mobile phones, Android, smartphones, computers or laptops, and digital tools, which can be done at any time, from any location, and is material-immersive (Fatmawati, 2019; Octaberlina & Muslimin, 2020; Zainul et al., 2020). Visual text, video, discussion forum, assignment, chat, quiz, and other formats are available (Butova et al., 2019; Herayanti et al., 2017). These results indicate that Raden Intan Green Campus Moodle E-learning has the same appearance and content as well as acceptable performance. These findings show that the quality of Raden Intan Green Campus Moodle E-learning needs to be upgraded to be ideal in terms of appearance and content. Students claimed that the design of the Moodle E-learning media product system at Raden Intan Green Campus has not been designed with a comprehensive design pattern for learning in higher education because it does not yet appear easy for users to see the List of courses per faculty, users should be able to find a lecture hall that is not as difficult. Font sizes and backgrounds are unappealing, and loading and uploading assignments are frequently challenging, requiring a redesign so that E-learning may be used more efficiently for undergraduate, master's, and doctorate study programs.

The design and content of a Web application's interface should be arranged so that the appearance does not divert from the intended objective (Fauzia et al., 2016; Fauziah, 2017). For the design of the E-learning interface as a web application to be more structured and follow user goals, users must be involved in early development identification so that the appearance and contents of the interface can be used to attract user attention (Fauziah, 2017; Quansah, 2021). The user-centered design technique in building web appearances that involve users (Oktaviani, 2014; Yafaei & Attamimi, 2019). Users are not required to think about how to apply it later. Still, they are encouraged to actively share their opinions when the E-learning designer is building the "interface" of the appearance and content. In other words, designers and users can collaborate in a focus group discussion (FGD) to create the display that the user desires while describing the benefits and drawbacks of the display and content that the user desires, as well as the complexity of its execution. Patterns like this provide users with a clear image of the appearance and content they will use.

Furthermore, effective learning allows students to study independently or carry out their tasks (Baharun et al., 2020; Febliza & Okatariani, 2020). Students engage in learning activities in which they learn while working. Students gain knowledge, understanding, and other aspects of behavior. Learning activities include immersive visual, audio-visual, oral, listening, chatting/writing, drawing, discussions, assignments, quizzes, and other mental and emotional activities during the online lecture process using the Moodle E-learning platform (Khairani et al., 2020; Paragină et al., 2011; Sahoo et al., 2020). Visual activities, spoken activities, listening, writing, drawing, motor, mental, and emotional activities are all indicators of learning activities. The researchers collected data to describe the learning activities of Raden Intan Green Campus students using a study questionnaire instrument comprised of 29 questions provided to 221 research participants. These findings reveal that Raden Intan Green Campus students' learning activities are generally moderate. These findings show that Raden Intan Green Campus students' learning activities need to be modified again to be more optimal. To improve all student activities in learning, not only listening activities, make good and fascinating use of learning media (E-learning) in class (Jayusman & Shavab, 2020).

Active learning encompasses all complicated physical, mental, and intellectual tasks aimed at changing one's behavior (Samsudin et al., 2019; Sze Yean, 2019). Effective learning is defined as learning that allows for self-study or self-activity (Alhefnawi, 2021; Farizka & Cahyono, 2021). Student activities that assist learning success are referred to as learning activities. The learning process in any educational institution, including tertiary institutions, must be interactive, inspiring, fun, challenging, and motivating students to participate actively, as well as provide adequate space for the initiative, creativity, and independence following the participants' talents, interests, and physical and psychological development. As a result, student participation in learning is essential. This demonstrates the importance of activity-oriented lecture activities designed by lecturers or higher education institutions (Ariandi, 2016; Dewi et al., 2019). Immersive visual, audio-visual, oral, listening, chatting/writing, drawing, conversations, assignments, quizzes, and other mental and emotional activities are all part of the online lecture experience.

To make all student activities in learning more conducive, not just listening activities, good and fascinating usage of learning media (E-learning) in class is recommended (Fatmawati, 2019; Zainul et al., 2020). Users must be involved in the future development of Raden Intan E-learning. This does not mean users must think about how to implement it later. Still, users are invited to actively argue when the E-learning designer designs the interface and content. In other words, the designer and the user collaborate to create the user's desired display while describing the benefits and drawbacks of the user's intended to display and content and the complications of its execution. Thanks to patterns like this, users know the design and content they will use. Furthermore, achievement motivation is the driving force behind a person's desire to pursue something to reach specific learning objectives (Kulakow, 2020; Partovi & Razavi, 2019). The indicators include 1) the dimensions of responsibility in completing work, 2) the dimensions of attained successes, 3) the dimensions of self-

development, and 4) the dimensions of acting independently. Based on the achievement motivation of Raden Intan Green Campus students, it is known that the average score of achievement motivation of Raden Intan Green Campus students from 221 research respondents is 81.62 with a median value of 81, the score that occurs most often is 80. The lowest score is 41, and the highest score is 116. The distance between the average score, the median score, and the score that often appears in the analysis of achievement motivation scores of Raden Intan Green Campus students was not much different, which indicates that the student achievement motivation data is normally distributed.

Based on the calculation above, the researchers determined the upper limit and lower limit of the level of involvement variable of achievement motivation of Raden Intan Green Campus students based on the results of the respondents' answers using a scale formula of three. The results of the calculation showed that the upper limit was 96 and the lower limit was 67, which indicated that the level the achievement motivation of Raden Intan Green Campus students was 65% (moderate), 18.6% (high), and 16.7% (low). These results indicated that, in general, the achievement motivation of Raden Intan Green Campus students was moderate. These results indicate that the achievement motivation of Raden Intan Green Campus students needs to be improved further to be more optimal. Furthermore, when viewed based on the variable indicators of achievement motivation of Raden Intan Green Campus students, which include 1) the dimensions of responsibility in doing work, 2) the dimensions of achievement achieved, 3) the dimensions of self-development, 4) the dimensions of independence in action, the average percentage of achievement motivation of Raden Intan Green Campus students was greater in self-development indicator (65.4%). This result means that the achievement motivation of Raden Intan Green Campus students is shown more in self-development, namely 1) increasing knowledge, 2) increasing skills, 3) the desire to progress, and 4) not being reluctant to ask questions. These results indicate that, in general, the achievement motivation of Raden Intan Green Campus students was moderate. These results indicate that the achievement motivation of Raden Intan Green Campus students needs to be improved further to be more optimal.

Therefore lecturers in the lecture process using the Moodle E-learning platform must increase students' motivation in aspects of the dimensions of responsibility in doing work, achievements, and independence (Chong et al., 2014; Moghadam et al., 2020; Parker et al., 2021). The value of responsibility is an attitude and behavior in carrying out obligations and duties that must be carried out for oneself, society, the state, and God the Almighty (Gunawan, 2019). Responsibility can also be defined as accepting the implications of one's labor and the ramifications of what has been entrusted to him (Kurniawan, 2017). A responsible person can be counted on to accomplish his or her work, is focused, does not blame others, and always thinks before acting. Based on the theories presented above, it is possible to conclude that the value of the character of responsibility is a person's attitude and behavior when carrying out the obligations associated with his duties. Teachers or lecturers can foster a sense of responsibility in their students by assigning planned and measurable homework so that the lecturer can evaluate and assign these tasks.

The use of the Moodle E-learning platform is extremely beneficial for students and the teaching team or lecturers at green campus because it allows them to continue carrying out lecture activities (S. Fatmawati, 2019; Zainul et al., 2020). The campus has been developing the Moodle E-learning platform under the name Raden Intan E-learning to support the green campus program. This E-learning aligns with the green campus program, which is a campus that implements low-emission energy efficiency, conserves resources, and improves environmental quality by educating its citizens to live healthy lifestyles and sustainably create a conducive learning environment. The green campus program is in line with the world's demands today, which is confronted with environmental challenges related to climate change and global warming, so sustainability quickly transforms from a simple issue to an important program. Green campus initiatives, such as waste reduction, energy efficiency, water conservation, a healthy work environment, and clean indoor air, must be implemented through E-learning (Anthony Jnr, 2021). E-learning uses technology as an effective solution for an active, self-directed, high-quality, and long-term learning process (Adiyarta et al., 2018; Ariesta, 2019; Priatna et al., 2020). Lectures on the green campus using the Moodle E-learning platform are required.

However, it cannot be denied that there is an issue with professors who are not adept in editing activities and using E-learning at the green campus of Raden Intan Green Campus. This problem must be remedied (Syafrimen, interview: 2021). The ability and readiness of computer technological abilities, as well as skills in designing learning materials and techniques, should be required to develop and implement E-learning so that lectures run according to the level of readiness. A pattern may be utilized to reduce rookie or elderly lecturers who are limited in their use of computer technology. That pattern is the collaboration of a team of lecturers. This learning team collaboration will cover each other's deficiencies and complement the teaching teams' strengths, making the Moodle platform E-learning more effective (Reilly et al., 2012). Finally, this study advises that all activities and student achievement motivation in learning, not only listening activities, be increased. Moodle's e-learning platform should be used effectively and creatively by lecturers. Furthermore, universities should welcome users to actively participate in the future development of e-learning, including

display design and content, as well as the introduction of post-covid pandemic lectures using the blended learning model.

4. CONCLUSION

Based on the formulation of the problem, data presentation, and data analysis, it is possible to conclude that the percentage of Moodle E-learning at Raden Intan Green Campus is higher in content and display. According to the calculation results, there is a moderate effect of the Moodle E-learning variable on student learning activities. The significance testing of the efficiency of Moodle E-learning on the learning activities of Raden Intan Green Campus students yielded significant results. Furthermore, at Raden Intan Green Campus, the impact of Moodle E-learning on student success motivation has changed with a moderate effect. It is known that there is significant effectiveness based on the findings of the calculation of the significance test of Moodle E-learning at Raden Intan Green Campus on students' achievement motivation.

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6. REFERENCES

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