INNOVATIVE ACTIVE LEARNING IN HIGHER EDUCATION: A CASE STUDY AT IAIN JEMBER

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***Abstract*— Higher education still often gets criticized, because it applies fragmented learning from real-life problems. So there needs to be a learning approach that can bridge the gap between education in higher education and real-life practice. This research is a field research (field work research) with a qualitative research approach. This research was conducted at the State Islamic Institute (IAIN) Jember. Research data were obtained through interview and observation techniques. Then the data obtained are analyzed using the Miles and Huberman model data analysis techniques, namely data collection, data reduction, data presentation, and conclusion drawing funds. The results showed that the learning methods applied were blended learning, project-based learning, cooperative and/or collaborative learning, combining new technology and research. Active and innovative learning contributes to the development of creativity, critical analysis, and independence in seeking knowledge and that is by the development of the times that continue to change.**

Keywords*— *Active Learning Innovation, Higher Education

I. INTRODUCTION

Society, technology, and science are constantly changing. This requires greater ability for each individual to adapt and innovate and increase readiness and ability to face the new education system which also continues to improve. Higher education taken at a university is the last stage of formal education taken by students (students) to equip themselves to be able to live in society and be accepted and compete in the world of work. Therefore, universities must ensure that each student can develop into a critical and reflective individual, and is able to construct and transform their knowledge to be able to solve problems, be able to create and realize ideas or ideas in a project by integrating their knowledge and skills.[1]

The responsibility of universities in preparing citizens who are able to face the challenges of the 21st century is strengthened by laws and regulations, namely Law of the Republic of Indonesia Number 12 of 2012 concerning Higher Education in article 6 letter (f) which reads "student-centered learning by paying attention to the environment in harmony and balance." And article 8 paragraph (1) which reads "In the implementation of Education and the development of Science and Technology, academic freedom, academic pulpit freedom, and scientific autonomy apply."[2] The law aims to build and inspire learning in higher education, based on the principles of active, interdisciplinary, collaborative learning, metacognitive abilities, and socioemotional skills. With this principle, it is expected that students, at the end of their education, have and can develop values and skills that enable them to respond to the challenges of this century and be able to face possible uncertainties resulting from the development of science and technology.[3]

Learning that takes place in universities is handed over to the academic community of universities to ensure the continuity of educational and learning practices that focus on developing knowledge and practical skills and not doing fragmented learning, which will later harm the process of student knowledge construction.[4] The urgency of shifting the educational paradigm from a traditional to a conventional educational paradigm does not happen quickly and certainly involves many aspects. One of them is the mentality of educators (lecturers), continuous training, and cultivating critical and reflective thinking. Given the importance of the role of universities in developing students' knowledge and skills, this study focuses on the application of learning methods in universities.

Research in the field of learning that emphasizes the importance of implementing active learning in higher education shows a relationship between the active learning environment, student participation, learning motivation, and the level of depth of learning experience carried out by students has been widely done. However, research focusing on active learning in higher education has been little done by researchers. Therefore, further research is needed to diagnose higher education learning that can create individuals who meet the profile of 21st-century learners. Higher education still often gets criticized, because it applies fragmented learning from real-life problems. So there needs to be a learning approach that can bridge the gap between education in higher education and real-life practice.[5]

In this context, this research was conducted with the aim of obtaining a broader picture of the practice of learning innovation in universities, namely by analyzing learning at the State Islamic Institute (IAIN) Jember more specifically. This study aims to identify potentials and weaknesses, as well as conduct further reflection to improve learning practices in universities. Although the results of this study are limited to regional contexts, it is expected that the potential in each university can be explored by other researchers. Because more and more research is carried out related to innovative learning, then as educators, and have knowledge that can improve the teaching and learning process for the better, which is able to prepare students to compete in the world of work,. This research intends to

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contribute by providing an overview of active learning in higher education that is able to equip students to be able to integrate formal education with real life. Furthermore, this research can be used as one of the points of view to be applied in national and international universities.

By considering some of the aspects above, there are four research questions formulated as follows: (1) how is the frequency of using active learning methods?, (2) how is the readiness and acceptance of teachers and students in carrying out active learning?, (3) how are the perceptions of students and teachers about the application of active learning?, and (4) what obstacles are faced in the application of active learning methods?. This research is arranged with thematic sides, in section two there is a literature review of the concept of learning innovation and active learning methods, in part three there is research methodology, part four discusses findings and discussion, and in part five there are conclusions.

In this section are presented some active and innovative learning methods.

a) Differentiated instruction

More than just teaching methods, differentiated instruction is a learning strategy that emphasizes on diversifying materials and learning styles, for a heterogeneous group of students in terms of learning needs, but with a common goal. This distinct learning is a learning practice that respects the differences between individuals and that tries to organize learning according to the differences of each learner.[18] This method uses strategies that allow differentiation in the classroom, depending on the degree of speed of absorption of material from each student. For this reason, teachers need to know students and not focus only on the weakest students, distinguish the content of training programs, form teamwork in spaces that are conducive to learning collaboratively with different student work modalities.[19] Given that students have different learning rhythms, one of the learning practices that can be applied is the differentiation of tasks given to students who have learning difficulties and students who can progress faster.[20] In this way, each student is faced with a learning situation that is beneficial to them. The organization of the classroom can support differentiation of learning, by rethinking the layout of tables and chairs, accessibility to resources, and can facilitate learners working in groups.[20]

b) Group Work

Group work plays an important role in the classroom, as it creates opportunities for dialogue and information exchange. In learning with the group work method, students can interact, conduct analysis, ask questions, present arguments, justifications and evaluations.[21] The main objectives of group work are to facilitate learners in the construction of knowledge, enable the exchange of ideas and opinions, and enable the practice of cooperation for common goals.[21] This learning technique with group work has three stages, namely: (1) planning (determining) goals, resources to achieve goals and defining the role of each student), (2) group action (implementation of planned actions, with collection of data and materials, preparation of data and conclusions to be presented in the form of reports), and (3) evaluation (checking whether the goals are achieved and whether each student's performance is in accordance with the expectations set by the group).[22]

c) Cooperative and collaborative learning

Collaboration cannot be assumed just because several people work together. Therefore, it is important to distinguish collaboration (co-elaborate) and cooperation (co-operate). This difference is related to the role of participants in it. Groups with the power of hierarchical nature do not develop collaborative work, because collaboration presupposes that actors work equally and mutually beneficially, in order to deepen their knowledge reciprocally.[23] Collaboration also requires shared decision-making, dialogue, and mutual learning. Cooperation, on the other hand, concerns the simple joint implementation of existing tasks or activities. Although different, these terms still complement each other, working collaboratively can involve cooperative work.

In education, cooperation is a certain working group that assigns tasks to each member of the group. This division of tasks can be done by the teacher clearly and all members must carry out their duties so that the goal is achieved. Meanwhile, collaboration, in turn, involves all team members in decision making, negotiation, and without clarity of purpose to divide certain tasks. A truly collaborative project is one that involves all participants. In this context, teachers do not intervene too much in decision making.[24] Although cooperative learning is effective and rewarding, its teaching model still prioritizes individual students' potential. However, lack of time and/or resources and subject-by-subject division of curriculum are at the root of the lack of joint initiative by teachers. In short, collaborative work allows one to face the challenges of today's society and contribute to more meaningful learning.

d) Case study

A case study can be described as a narrative of a real, fictional or adapted reality that serves as study material in the classroom. This narrative aims to put into practice the knowledge that students acquire about a particular topic. This method involves the analysis of problems and decision making by the student and allows direct contact with situations that can be encountered in his learning task. The use of case studies allows teachers and students to contribute to the learning process. Although the teacher is more familiar with the case study than the student, their knowledge is not taken for granted, as the student presents a new perspective on the issue discussed. In order for the learning process to be meaningful and involve students, the theme must be related to the knowledge obtained by students before.[25]

e) Problem-based learning and problem-solving methods

Problem-based learning consists of solving problems that students have not received on previous information, which will force learners to discover for themselves problems and possible solutions. Thus students play a major role in the search for information and knowledge. The teacher, in turn, becomes an advisor, facilitator, supports students in the process of solving cases, but does not teach in a conventional way. Students who are active in their efforts to solve cases.[26] From this method, through presenting problematic situations to students, learners can

propose solutions, through the knowledge they already have or through the search for new information.[27] This method encourages reflection and dialogue between students and between students/teachers. Thus, the student will cease to be a passive listener and become an active actor in the learning process, developing his critical analysis and creativity.

f) Role play

Role play is a simulation technique in which students represent a situation, in a planned manner or spontaneously. For this role-playing method to be effective, it is important that there is clarity of the content or storyline being worked on and the learning objectives set (). It is necessary for the teacher to know well the group of students to whom he or she applies this technique, as a very shy group may feel intimidated and a very agitated group may have difficulty concentrating. Because intense emotional involvement is required in the role play method. It is necessary for teachers to adopt some precautions, especially with students who do not know how to deal with conflicts and group situations.[28]

g) Blended learning

Digital information and communication technology has changed the dynamics of the classroom. The integration of technology in classroom learning activities has given rise to blended learning. Campauran learning combines face-to-face and distance learning, which is done using technology. This method has been used in higher education to integrate student learning activities when students learn content using online sources and when learning takes place in class, with interactions between learners and teachers. Face-to-face learning must certainly have supervision from teachers, mutual respect in interpersonal interactions and be equipped with online learning to provide a more efficient teaching and learning process. [29]

h) Flipped Classroom)

A flipped classroom is blended learning, where the subject matter is learned practically before students are present in class. In this way, the classroom becomes active as a learning space, where the material that has been learned is worked on and problem-solving activities are also practiced, projects and group discussions are carried out, with the support of the teacher and peer cooperation.[30] The basic principles in carrying out learning with the flipped classroom method are: (1) Class activities involve a large number of student activities, learning to ask, solve problems and other activities, requiring students to take, apply and expand the material learned online / independently; (2) Students receive feedback immediately after classroom learning activities; (3) Students are encouraged to participate in online and face-to-face activities; and (4) the material to be used for online learning and the learning environment in the classroom is very structured and well planned.[31]

II. METHODS

This research uses a qualitative methodology approach. The purpose of this study is to analyze the perceptions of educators (lecturers) and students about active learning methods at the State Islamic Institute (IAIN) Jember. Researchers used purposive sampling techniques, which are not intended to represent the population, but rather to represent the information needed in the study. This paper intends to understand the phenomenon, because the research questions of this study are best answered using a qualitative approach that allows researchers to gain insight and interpretation of data or information rather than hypothesis testing.

This research analyzes specific cases or phenomena that occur at IAIN Jember, especially in the learning aspect, therefore this type of research uses case studies. With this type of case study research, it is intended to verify whether the practice of active learning innovation in higher education discussed in the literature review (literature review) is implemented in the learning practice at the site that is the subject of research.

The method of collecting data in this study used interview and observation methods. After the data is collected, it is then processed and analyzed as follows: (1) analysis of data collected before coming to the research field from preliminary studies or secondary data used to determine the focus of the study, and (2) analysis data in the field (Milles and Huberman models) analyzed at the time of collection, and after data collection is completed in a certain period of time. The steps of data analysis include: data collection, data reduction, data presentation and conclusion/verification.[32]

Triangulation is used for the benefit of data validity and credibility which includes (1) triangulation methods or techniques for testing data credibility by checking data on the same source with different techniques, (2) triangulation of data sources to test data credibility. data by checking data obtained through several sources and (3) triangulation of theories used to compare the final results of research with relevant research perspectives to avoid individual researchers on findings or conclusions.

III. RESULT AND DISCUSSION.

The following research findings are based on interviews with lecturers and students as well as observations of learning activities in universities, namely IAIN Jember. The results of this study found the practice of learning innovation applied at IAIN Jember. The following is an explanation of the results of this study.

A. The frequency of use of active and innovative learning methods

To answer this question, it is important to first analyze how relevant learning innovation is to educators (students) and is to students and teachers. The results showed that educators (lecturers) argue that innovating in higher education learning is something that must be done by all academics, especially lecturers who are directly related to the learning process, where lecturers must always update the development of issues in the development of science and technology, as well as competition in the world of work. So that lecturers are able to make improvements and learning innovations to prepare their students. Learning innovation is absolutely carried out at every level of education, including in higher education. Higher education is education that has the task and function to prepare students to be ready to continue their lives in society and compete in the world of work. Therefore, because learning is a way to prepare students, innovation must always be done by looking at the

times. Learning innovation not only needs to be done but must be done, so that what students receive both in terms of science, attitude, and skills is not out of date.

Students as individuals who are active in learning also realize the importance of learning innovation, this is based on the reason that learning using the old model is no longer relevant to the current way of student learning. For example, learning that only takes notes and listens to explanations or monotonous discussions, will make the class not alive. The importance of learning innovation is also useful so that students' perceptions in undergoing education in higher education are not only as a reminder of obligations and carrying out routines. The existence of learning innovation, aims to make students have an attitude of active participation based on their own initiative, so that every time they participate in learning, students feel themselves motivated to always develop their knowledge. Today's world of work no longer views academic values as the only consideration to be accepted as a workforce, but other considerations, such as attitudes, skills, interpersonal and intrapersonal skills are also taken into consideration. Therefore, learning innovation must be loaded to develop all the potential that exists in its students.

Regarding the use of active learning methodology, the results show that with reference to the learning method applied at IAIN Jember, blended learning (practical learning that combines classroom teaching with distance learning) is the learning method that is most relevant to student conditions. This is based on the consideration that students are independent learners, so they are able to learn online by tracking information sources related to the college program that students are taking. And face-to-face needs to be done so as not to lose the spirit of learning.

It is important to be informed that when this research was conducted, educational institutions adopted a distance learning system because it adjusted to government conditions and regulations related to the coronavirus (covid 19) pandemic. This condition makes lecturers and students use a combination of active learning methods with the use of online learning technology. So that lecturers and students conduct learning and meet through virtual learning applications, such as by using zoom, google meeting, google classroom, and other online learning applications. As for active learning, carried out by students independently, they coordinate with group mates to solve problem topics that are the theme of learning, either by using collaborative, cooperative, problem-based learning methods, and so on.

Students and lecturers continue to carry out learning as usual, only now face-to-face meetings are carried out online. Students learn independently with permanent lecturers providing active learning activities, such as using cooperative, collaborative, project-based and problem-based learning. Furthermore, reports on learning outcomes that have been carried out by students, are used as material for virtual class discussions, or reports for hard copies are collected directly to lecturers.

B. Readiness and acceptance of educators (lecturers) and students (students) in the implementation of learning using innovative active learning methods

The results show that the majority of education (lecturers) and students (students) feel ready to do active learning. As a mature learner (andragogy), learning by dictation is no longer something that matches his characteristics. Students can determine their way of learning, not always guided and told to do activities that have too many rules, like school-age children. Therefore, students are ready to do active learning. The use of learning technology, such as the involvement of online learning applications, is also a discussion in innovative learning. When almost 100% of learning activities are carried out virtually, students' readiness to do online learning is not only mentally prepared. Students need to prepare supporting hardware, such as smartphones and internet services, which can facilitate communication to conduct innovative learning. With the internet service, students can learn independently or collaboratively by utilizing various sources to find information to solve problems that are learning topics.

The participation of educators (lecturers) in innovating in learning must be embedded in themselves. Lecturers as educators in universities need to have creativity in choosing and using learning methods that have meaning and value for the lives of their students later when students live in the community. This means that lecturers need to choose learning materials or themes that are by the student's department and profession later (DSN). During this COVID-19 pandemic, it needs to be addressed calmly, and make educators and students take lessons to stay enthusiastic and activate themselves to be one step ahead and wise in using online learning media. As an educator (lecturer), presenting active and innovative learning has become a must. In today's online learning atmosphere, active learning can be done by presenting discussion topics or selecting complex problems that encourage students to be creative and solutive.

Regarding the acceptance of lecturers and students in conducting active and innovative learning, students express their form of acceptance by continuing to follow learning enthusiastically which can be seen from the way of discussing and expressing opinions related to learning problems or topics. Students also showed an attitude of acceptance by actively participating in learning until the end of learning, both online and face-to-face before the pandemic took place.

The attitude of lecturer acceptance with active and innovative learning is carried out by lecturers using varied methods such as role-play, reverse class methods, and others. This is done by lecturers to prepare students to be able to compete in making innovations in the world of work later.

C. Perceptions of educators (lecturers) and students (students) about active and innovative learning practices

Active and innovative learning methods applied at IAIN Jember contribute to the development of creativity, critical analysis and independence in seeking knowledge. Students are no longer passive individuals who are ready to be stolen knowledge. It is students who should be more active in seeking actual information, having discussions with more interaction with other individuals. The importance of implementing active and innovative learning as a tool encourages students and lecturers to have a culture of scientific research and the ability to work as a team.

Active and innovative learners are suitable learning for students, because with this learning, students are trained to

learn and act as in real life, such as how to work in a place where there are differences of opinion. This trains students to be able to make decisions together and respect each other. Learning in universities that apply active and innovative learning methods has become a must, because universities are the last gate to prepare graduates who are ready to live in society with all challenges, such as differences, job competition, and life needs, as well as issues that need to be addressed wisely. Therefore, learning in higher education should be adjusted to the needs and developments of the latest science and technology.

*D. **Constraints in the application of active and innovative learning***

In the application of learning, of course, obstacles or obstacles will arise. As well as in the application of active and innovative learning in higher education at IAIN Jember, obstacles that often arise in the application of learning are the layout and size of classrooms that are less representative of the number of students. Thus causing the air to become hotter, and the layout or shape of student seating is less varied.

Another obstacle that arises from this innovative active learning application, although most lecturers have applied active and innovative learning methods, there are still some lecturers who have not applied active and innovative forms of learning, so that learning seems monotonous and tends to be less enjoyable.

The existence of lecturers who have not applied this active and creative learning method, of course, special training related to the application and development of learning methods is needed. However, what happens, training that is concerned and focused on discussing learning methods in universities is still considered lacking in terms of frequency of implementation.

Discussion

a. *The frequency of use of active and innovative learning methods*

As discussed in the literature review, active and innovative learning needs to be strengthened in higher education learning practices and needs to be a theme discussed by all individuals participating in the learning process. Therefore, the first step for educators (lecturers) and students (students) is to try to recognize the need to innovate in learning. The results of this study suggest that educators and learners at IAIN Jember are aware of this need, as they associate the relevance of future needs with active and innovative learning.

Given the importance of innovation in learning, educators in higher education use active and innovative learning methods. The purpose of this learning method is to stimulate active and constructive learning. In addition, the results showed that IAIN Jember applied learning as a whole, in the literature review, highlighting the importance of implementing active and innovative learning methods in higher education and the results also showed that in the IAIN Jember environment, educators and students also recognized the importance of implementing active, innovative, and independent learning for students (students).

b. *Readiness and acceptance of educators (lecturers) and students (students) in the implementation of learning using innovative active learning methods*

The results showed that educators and learners felt ready and receptive to implement active and innovative learning methods, informants displayed different opinions related to their readiness and acceptance. The shift to active and innovative learning requires continuous training. This shows that educator training is needed to better prepare them to adopt learning methods that are in accordance with the needs of the times.[11]

In addition, the results of the study also show that educators and students want this active and innovative learning method to continue to be applied and improved in the future. The results of this study are in line with a literature review highlighting the resilience of higher education to pedagogical innovation, higher education has long been recognized as a vehicle for strengthening knowledge and adapting to changes that occur in the teaching process over time.[11] The results show that there has been an evolution in the way universities adapt learning innovations.

c. *Perceptions of educators (lecturers) and students (students) about active and innovative learning practices*

The results showed that active and innovative learning applied at IAIN Jember contributes to the development of creativity, critical analysis and independence in seeking knowledge, fosters a culture of scientific research and the ability to work as a team. The consequences of applying active and innovative learning methods are consistent with literature review, when explaining innovative active learning models, which are focused on the abilities of students, active and innovative learning methods encourage students to seek knowledge independently, and develop creativity and critical analysis.[12] In today's ever-changing society, learners need to develop skills, in order to be integrated into a highly competitive job market. Therefore, the application of innovative and active learning methodologies is relevant to future needs.

d. Constraints in the application of active and innovative learning

According to the literature, to encourage change and innovation at a more higher education level, this process does not happen quickly or easily. It involves a change of mentality, continuous training and the existence of a reflective and critical culture.[11] In addition, in the application of innovative active learning, classrooms need to be arranged so that learning is conducive to student collaboration activities.[6] In line with the literature review, the results of this study show that class size and room layout as the main obstacles to the implementation of active learning methods. In fact, the large number of learners in the room does not encourage collaboration and does not facilitate learning. In addition, the lack of specialized resources and training is also assessed as an obstacle to the implementation of active and innovative learning methods. Training for educators and other supporting resources is critical to the success of teaching and learning.

IV. CONCLUSSION

The study discusses the importance of active and innovative learning in higher education, particularly at IAIN Jember. It highlights the benefits of such learning methods, the readiness and acceptance of educators and students, as well as the constraints in their application. The study also emphasizes the need for continuous training and the evolution of universities in adapting to learning innovations. The results show that active and innovative learning contributes to the development of critical skills and independence in seeking knowledge. However, challenges such as classroom layout and lack of specialized resources and training hinder the full implementation of these methods. The study aims to contribute to a broader understanding of innovative active learning in higher education. The list includes various academic journal articles and books on different teaching methods such as differentiated instruction, group work, cooperative learning, case study teaching, problem-based learning, role play, blended learning, and the flipped classroom model. The articles and books discuss the implementation and effects of these teaching methods on student learning and perceptions.

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