

Application of E-Mind Map Learning Model Based on Criminology in Improving the Quality of Learning

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Abstract— This study aims to improve the quality of lecture learning through (1) Planning, management of instructional media, learning resources, and assessment of learning; (2) Implementation of learning in preliminary activities, core lecture activities, and closing activities; (3) Effectiveness of the application of learning models on the quality of learning criminology. This study uses Tony Buzan's theory of how the brain works in learning, which confirms that the brain is a highly sophisticated associative machine and full of associative magic, and Ausubel's theory states that learning success is mostly determined by the significance of the teaching material being studied. This research uses a quantitative approach with a class action research approach. Data collection techniques used observation, document analysis, and questionnaires. The location of the study was conducted at the Department of Citizenship Education of the University of Indonesian Education with research subjects being students in Criminology courses in the academic year 2017/2018 totaling 100 people. The expected outcome in this study is the application of the e-mind map learning model can improve the quality of learning, including the learning process and learning outcomes.

Keywords: *e-mind map, green criminology, quality of learning*

As revealed in Ausubel's theory [1] that "The success of learning is largely determined by the meaningfulness of the teaching material being learned." Ausubel also emphasized that teachers know the concepts that have been owned by students so that meaningful learning can take place. But Ausubel has not yet provided a tool or method for teachers that can be used to find out what the teaching participants already know. Following up on Ausubel's learning theory, Novak put forward his idea that it can be done with the help of thought maps. The e-mind map learning model supported by the software is learning that is adopted from the term computer, "click" is an "entrance" to be able to understand and remember a particular subject or concept, even cross-subject, effectively and efficiently.

"Click" can be a hook to be able to understand and remember. "Click" can be a chart, principle, key, table, graph, or a specific abbreviation or association. Tony Buzan, the inventor of the e-mind map technique and an expert in brain studies and learning, said that the brain is a highly the sophisticated association machine and full of associative magic. While Bobbi DePorter, in the book quantum learning, said that association is the key to getting special memory. Therefore, research needs to be done using the e-mind map based click method on a simple scale to make it easier for students to remember Criminology materials quickly and efficiently.

I. INTRODUCTION

Learning problems are complex problems faced from elementary school level up to college level so that efforts are still needed to look for problems in learning. One way to overcome the learning problem is to use a mind map. With the application of thought maps in the delivery of Criminology material, it expected to be able to attract the attention of students so that they are more focused on learning material. Besides being used by lecturers in delivering content, this concept map is also used by students when recording equipment to develop creativity and activity in the learning process. In understanding the material and improve memory. Someone's mind of a material or object will weaken when the person is given new material. This is due to the limited capacity of our brains. However, memories that have been weakened against material or object can be recalled (recalling) when we remember symbols or meanings that are strictly related to the purpose.

II. THEORETICAL REVIEW

Tony Buzan [2] Mind Map is "a method for storing information received by someone and recalling the information received." A mind map is also a technique to summarize the material to be studied and project the problem at hand in the form of maps or graphical techniques so that it is easier to understand. a mind map is an effective form of learning methods to understand the conceptual framework of a subject matter.

A mind map is a method of utilizing the whole brain by using visual images and other graphical infrastructure to form a deeper impression [3]. A mind map is a technique to summarize the concepts to be learned and project the problem at hand in the form of maps or graphical techniques so that it is easier to understand. A Mind map is handy for understanding material, especially material that has been received by students in the learning process [4]. Mind map aims to make the subject matter visually and graphically finally can help record, strengthen, and recall information that has been learning. In learning activities using this e-mind map model, students actively compile the core of a subject matter into a mind map. His book titled *Smart Book Mind Map* shows that this e-mind map will help children: (1) Easy to remember things; (2) Remembering facts, figures, and formulas easily; (3) Increasing Motivation and Concentration; (4) Remembering and memorizing becomes faster [5]. The concept of green criminology is an ecological approach that focuses on environmental sustainability and broader environmental damage by applying ideas about environmental ethics, ecology, and human rights [6]. Carrabine (P. Beirne and South N, 2007 pp. 135-136) discuss environmental crime about the primary and secondary offense. Green crimes are broadly defined simply as crimes against the environment. Primary crimes are actual crimes, which directly result in the destruction and degradation of the earth's resources through human actions (for example, burning forests). Quality as "a predictable degree of uniformity and dependability at a low cost, suitable to market [7]. Quality as "fitness for use, as a judge by the user." Then Piliph B. Crosby said that variety is "conformance to requirements" [8]. Quality is difficult to define. This is because each individual has their measurements in determining the quality of learning quality Indicators referring to the Rector's Regulation of the Universitas Pendidikan Indonesia Number 3259 / UN40 / HK / 2018 About Guidelines for UPI Education Implementation in 2018. Quality assurance covers the learning process and learning outcomes. The quality of learning is carried out in the form of monitoring the presence of lecturers and students, surveying student satisfaction, ensuring the availability of documents/learning materials, as well as monitoring and evaluating the learning process.

III. RESEARCH METHOD

This study uses a qualitative approach, the method used in classroom action research with the intention of the researcher can describe clearly and in detail and obtain in depth data and research focus on the application of criminology with e-mind mapping learning models in improving the quality of learning in Civic Education students in Criminology courses. Data collection techniques used in this study include (1) participatory observation or observation; (2) documentation studies; (3) questionnaire. Data collection activities using methods according to the type of instrument used as follows: Participatory observation, conducted by researchers as observers by involving themselves in Criminology lectures. The questionnaire was distributed to students to see their perceptions of the application of the e-mind map-based learning model and its impact on improving the quality of learning.

IV. RESULTS AND DISCUSSION

Based on the results of observations in the group I conducted on students' perceptions using a questionnaire instrument filled out by students, the results were quite good. However, there were still many aspects that received a small score. That is because students are still unfamiliar with the application of e-mind map learning methods and have not been able to condition the steps that must be passed by students. In group I, many students did not understand the application of the e-mind map learning method because so far, lecturers rarely use varied techniques in lectures, so students are less prepared when implementing the e-mind map learning method. The use of the e-mind map method based on behavior, academic ability, and concepts in learning. In this study, using quantitative and qualitative methods. Based on the data obtained in this study, it determined that there were significant positive differences in the concepts of student learning, overcoming misconceptions, academic achievement, and attitudes towards science programs by taking notes through mind-mapping methods. This type of research is classroom action research. The subjects of this study were fourth-semester students in Criminology courses.

The process of data collection was done through observation, tests, documentation, and interviews. In this study, the task of observing researchers in teaching is lecturer courses. The results of this study indicate an increase in the quality of learning. This study shows that student learning outcomes before group I was carried out, after group I was implemented using an e-mind map with the results of student learning software increasing and continued with group II student learning outcomes significantly increased. Overall by using the e-mind map method with software media can improve the quality of learning. In the mind map application, it is necessary to add task information search in web pages, e-mails to mind map information so that knowledge about mind map content and structure is improved through keyword-based search engines, document recommendation systems, and creating user profiles [9].

The results showed 1) Criminology lectures conducted by lecturers using the e-mind map method or thought map using software subject matter as outlined in the PowerPoint then presented were able to facilitate students to understand the contents of lecture material. 2) There is a significant improvement in the quality of learning after using the e-mind map method in learning Criminology courses. 3) The change in perception, students, do not look at learning Criminology as learning that is difficult to understand but instead becomes learning that is easily understood. Based on the results of research and discussion, the conclusion is the use of the e-mind map method in learning Criminology in Citizenship Education students in the fourth semester of 2016 considered auspicious because it can improve student learning outcomes. The researcher also recommends the e-mind map method as an alternative method in overcoming the problems of learning in the classroom and to overcome the difficulties faced by students in making conclusions must use an e-mind map to be easily understood. The study

results confirm that the e-mind map learning model allows students to have a basic conceptual understanding of quickly receiving information, and promotes active learning to improve their memory, especially when taking written report [10]. In connection with an increase in the quality of learning by using e-mind map so that it is necessary to try the e-mind map method to improve student learning outcomes and can also be developed to improve student achievement.

In the learning process aims to direct and motivate students to be better prepared and happy in learning Criminology. In making preparations for teaching, lecturers must carry out continuity and consistency to gain experience and learning practices between students and lecturers [11]. So an exciting learning model is needed to improve the quality of education towards better. Some things that can be done by the lecturer is to apply learning models that are tailored to the needs in delivering learning material to students so that it makes it easy for students to capture and understand learning material easily quickly and can be understood. Learning models can be used to shape curriculum (long-term learning plans), design learning materials, guide learning in class, or other. Based on the statement above that the learning model is a plan that is carried out so that the learning process can be carried out properly in accordance with the Semester Study Plan that has been predetermined besides the lecturer as a facilitator in the application of the e-mind map learning model as well as providing motivation to students so that the learning process the passive becomes more interactive and communicative.

Learning activities that take place are influenced by experience, as well as how lessons are sorted and mediated; students learn practices in the discipline regarding how theories, models, and arguments are built and social processes to participate when learning takes place [12]. Motivation is fundamental in the learning process because, without motivation, students will not want to learn well; motivation itself is an encouragement of activities both from their factors and from their environment. Providing motivation is very important because it can encourage individuals to carry out activities to achieve the goals of motivation is very important to foster a spirit of learning to make good learning following the objectives. Also, the learning process will go well. Students can understand knowledge by using exciting learning models, and passive student activities tend to only listen to lecturers who teach using the lecture method and will make them bored and bored. Academic knowledge about human cognitive development helps teachers understand what children know and can do at specific points in their development, inform observations about children's understanding and perception in different situations, and enhance the ability of teachers to use the development of learning experiences [13]. The results of research conducted on the 2016 semester 2016/2018 Citizenship Education students who at the beginning of the study passive students and naughty students made progress after applying the e-mind map learning model in an effort to increase motivation. Students

are much more active and more comfortable to understand lecture material.

V. CONCLUSION

The e-mind map learning model is a technique for compiling notes using software, which is poured into a form of media to help students use their full potential for the brain. The trick, combining the left and right brain work. This method makes it easy to enter information into the mind and to retrieve information from the brain again. A e-mind map is the best technique to help the brain think process regularly because it uses graphics techniques derived from human thought that are useful for providing universal keys that open up the potential of the mind. The application of the e-mind map learning model can improve the quality of quality learning including the learning process and learning outcomes, as well as training students' thinking in presenting to no longer read power point slides, as well as in delivering presentations in front of the class very systematically this tendency makes student enthusiasm or motivation show things positive in learning criminology.

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