Habits of Mind: A Study in Anticipating Learning Loss at State Universities in Riau Province

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ABSTRACT

Habits of mind a lecturer’s is very important so that students can overcome obstacles in learning activities. For approximately two years the implementation of learning is carried out online, so this condition has a negative impact on students and students. One of these impacts is the occurrence of Learning Loss in students. In general, the research that has been carried out has identified research data through the instrument developed by Costa and Kallik which consists of many question indicators. However, the indicators developed by Marzano have not been widely used. These indicators include: Self Regulation, Critical Thinking and Creative Thinking. This research focuses on the Habits of Mind Lecturers of Social Studies Education Department at State Universities in Riau Province in Anticipating Learning Loss. The research conducted is descriptive quantitative research. To analyze the index and the sustainability status of the Habits of Mind Lecturer skills, a Multidimensional Scaling (MDS) analysis approach was used with the help of the RapHoM software (modified Rapfish). The habits of mind skills of lecturers at state universities in Riau Province are classified as quite sustainable. His condition is certainly a warning that the habits of mid skill of a lecturer are needed in order to increase student interest, motivation and achievement through lecturer habits in transmitting positive thinking habits to students.

Keywords: Anticipating Learning Loss, Habits of Mind, Creative Thinking

INTRODUCTION

The progress of the transformation era in the 21st century is so fast, so that there is increasingly fierce competition in all aspects including economic, legal, social and educational aspects (Lin et al., 2020). The progress of this transformation era requires that every country must be able to adapt so that it does not lag behind other countries that are better able to adapt along with the progress of the transformation era, especially in the aspect of education. Fundamental problems faced in the aspect of education that are almost evenly distributed throughout Indonesia include the decline in student interest in reading lecture material (Rakhmwati et al., 2020), not completing the tasks given by the lecturer properly (Gloria et al., 2017), and the low level of student skills in developing their knowledge (Lin et al., 2020).

Approximately two years of implementation of learning is done online, by utilizing information technology. This learning has a negative impact on students and students, including Social Studies Education students at State Universities in Riau Province. One of
these impacts is the occurrence of Learning Loss in students. Learning Loss can be interpreted as a condition of loss or decline in competence (cognitive, affective, and psychomotor) of students, due to the cessation of the face-to-face learning process. Not only in Riau Province, currently Learning Loss is a global problem, which is indicated to not stop even though Covid-19 is over (Annisa, R., Wibowo, T., & Sapti, M. 2022). Academic from the University of Oxford, England, Michelle Kaffenberger added that the crisis of declining learning abilities will not stop, even if schools reopen. Learning Loss can continue if the government and schools do not implement a policy to restore learning abilities first (Andre, 2021; Triwiyanto, T., et al., 2023).

This problem certainly will not occur if the lecturer is able to transmit good thinking habits to students so that these problems can be avoided. To overcome these problems, it takes the skills, behavior, and habits of mind of lecturers to provide examples and transmit good habits to students so as to create more interactive and fun learning activities, especially in the current learning system such as blended learning, hybrid learning or face-to-face learning is limited.

Habits of mind a lecturer’s is very important so that students can overcome obstacles in learning activities (Firmansyah et al., 2021). To realize good understanding and skills in learning, it is not enough to just read and memorize the subject matter (Hidayati & Idris, 2020). Lecturers need to provide provisions to students so that they are able to get used to being able to think intelligently and critically in processing the information received and are required to have creativity in solving problems faced, especially in the learning process in class (Hayat et al., 2019).

Previous research related to Habits of Mind focused on teachers, students and students. Information about the Habits of Mind of a lecturer is very rarely found, so this research is expected to be able to stimulate scientific studies for lecturers in transmitting thinking habits to students. On the other hand, lecturers as professional teachers are agents of change to channel good thinking habits, exemplary behavior and teach various skills to solve learning problems in the classroom through the teaching activities they do. In general, the research that has been carried out has identified research data through the instrument developed by Costa and Kallik which consists of many question indicators.

However, the indicators developed by Marzano have not been widely used. In the indicators developed by Marzano, the Habits of Mind indicator he developed has a good level of flexibility for research samples to determine their Habits of Mind because the Habits of Mind description is more structured in detail and makes it easier for lecturers to assess their Habits of Mind to improve strategies teaching in anticipating learning loss. These indicators include: Self Regulation, Critical Thinking and Creative Thinking.

**METHOD**

Method used should be accompanied by references, relevant modification should be explained. Procedure and data analysis techniques should be emphasized to literature review article. The research stages should be clearly stated. The research was conducted at State Universities in Pekanbaru City. This research focuses on the implementation of learning that is carried out offline in the even semester of the 2021/2022 Academic Year.

This research focuses on the Habits of Mind Lecturers of Social Studies Education Department at State Universities in Riau Province in Anticipating Learning Loss. The research conducted is descriptive quantitative research, aiming to describe a situation or phenomenon.

The instrument used is a questionnaire, which consists of three indicators of habits of mind, namely: Self Regulation, Critical Thinking and Creative Thinking.
Table 1. Research Instrument Grid

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Indicator</th>
<th>Sub Indicator</th>
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<tbody>
<tr>
<td></td>
<td>Self</td>
<td>Realizing Your Own Thoughts</td>
<td>Plan Effectively</td>
</tr>
<tr>
<td></td>
<td>Regulation</td>
<td></td>
<td>Recognizing and using the necessary information sources</td>
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<td></td>
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<td></td>
<td>Sensitive To Feedback</td>
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<tr>
<td></td>
<td>Critical</td>
<td></td>
<td>Evaluating the Effectiveness of Actions</td>
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<tr>
<td></td>
<td>Thinking</td>
<td></td>
<td>Clear and Seeking Clarity</td>
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<td>Habits of</td>
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<td>Open</td>
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<td></td>
<td>Mind</td>
<td></td>
<td>Able to Put Yourself When There is Guarantee</td>
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<td></td>
<td></td>
<td></td>
<td>Be Sensitive And Know Your Friends' Knowledge Ability</td>
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<td></td>
<td></td>
<td></td>
<td>Can Be Involved In Tasks Even If The Answers And Solutions Are Not Immediately Visible</td>
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<tr>
<td></td>
<td>Creative</td>
<td></td>
<td>Making Efforts to Maximize Ability and Knowledge</td>
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<tr>
<td></td>
<td>Thinking</td>
<td></td>
<td>Create, Use, Improve Self-made Evaluation Standards</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Generate New Ways of Seeing Situations Different From Usual Ways In General</td>
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Interviews were conducted with the heads of the faculties at the University of Riau and the State Islamic University of Sultan Syarif Kasim Pekanbaru. Faculty leaders are given a series of statements that are considered to be able to explain each attribute for each dimension of the sustainability assessment of the Habits of Mind Lecturer of the Social Sciences Education Department. The researcher uses the Checklist Sheet and then identifies or ticks according to the respondent's answers/opinions to conditions that are not in FKIP Riau University and then compares them with the criteria or indicators for the sustainability of Habits of Mind. The value given to the response given by the respondent is marked with the number 0 (Poor); 1 (Medium), and; 2 (Good).

To analyze the index and the sustainability status of the Habits of Mind Lecturer skills, a Multidimensional Scaling (MDS) analysis approach was used with the help of the RapHoM software (modified Rapfish). According to Pitcher (1999) Rapfish is an abbreviation of Rapid Appraisal for Fisheries which is a Non-Parametric Multidimensional Scaling approach. The RapHoM analysis was carried out through several stages, including: (1) Determining the sustainable attributes of learning management; (2) Provide a (bad-good) rating on each attribute on an ordinal scale based on the sustainability criteria of each dimension; (3) Input the value/score of the assessment results of each attribute into the RapHoM software, and run RapHoM; (4) Compile the index and sustainability status. The score results for each attribute are analyzed with multi-dimensional analysis to determine one or more points that reflect the position of sustainability (unsustainable, less sustainable, moderately sustainable and very sustainable).

RESULT AND DISCUSSION

Self Regulation

Self-regulation is a series of processes in which a person can determine the achievements and actions they will take, set goals to be achieved, evaluate success when they have achieved those targets, and evaluate themselves because of their success in achieving those goals (Friedman & Schustack 2008). Figure 1 below presents the results of the analysis of the self-regulation skills of lecturers in the Social Sciences Education Department at State Universities in Pekanbaru City.
The results of the analysis of the 5 attributes that affect the lecturer's self-regulation skills show the value of the sustainability index on the self-regulation indicator is 76.21, the value is in the range of 75.01 - 100.00 with a sustainable status (very sustainable).

The results of the leverage analysis show that, of the 5 attributes analyzed, there are two main attributes that have high leverage on the habits of mind of lecturers, namely the attribute realizing your own thoughts and attributes recognizing and using the necessary information sources. Thus, the lecturer has an obligation to familiarize and apply excellent self-regulation in every job he will do. Fatmah et al (2019) provide an explanation that a teacher or in this case is a lecturer must have good self-regulation. Lecturers can produce good analysis and ideas, good feelings, and even good actions that are useful for achieving their goals. This opinion is in line with the statement given by Afifa (2021) that 80% of a person's success is influenced by non-IQ factors, which are called emotional intelligence or emotional intelligence, one of which is self-regulation.

Self-regulation in the implementation of teaching and learning activities belongs to a proactive process used to improve abilities and skills related to academics, such as determining goals and strategies used in learning activities (Dinata, Rahzianta and Zainuddin, 2016). In addition, self-regulation at the time of study and work is regulated as an active process in which a person builds goals to achieve success in learning and at work (Hadi, 2020).
Critical Thinking

Figure 3 below presents the results of the analysis of the critical thinking skills of lecturers in the Social Sciences Education Department at State Universities in Pekanbaru City.

Figure 3. The Value Of Sustainability Habits Of Mind Lecturer On Critical Thinking Indicator

The results of the analysis of the 5 attributes that affect the lecturer's critical thinking skills show the value of the sustainability index on the self-regulation indicator is 72.82, the value is in the range of 50.01 - 75.00 with a quite sustainable.

Figure 4. The Results Of The Analysis Of Leverage On Critical Thinking Indicators

The results of the leverage analysis show that, of the 5 attributes analyzed, there are two main attributes that have high leverage on the habits of mind of lecturers, namely the attribute evaluating the effectiveness of action and attributes be sensitive and know your friends knowledge ability.

It is known that based on the analysis of critical thinking indicators, it can be identified that the average score of all sub indicator is.. %. The results of this analysis indicate that the Lecturer of the Social Sciences Education Department at State Universities in Pekanbaru City in carrying out his work, he prepares various resources that I need before I start working on the assignment. In addition, Lecturers of the Social Studies Education Department at State Universities in Pekanbaru City are also looking for various sources according to their needs and if the required sources are not available, then the Social Sciences Education Department Lecturers at State Colleges in Pekanbaru City will look for other places where the information can be obtained. found.
The results of this study are also in line with the opinion of Cohen (2010) that someone who has the nature of always looking for accuracy is characterized by an attitude of seeking the best information in certain situations, conditions, or problems. Someone who is always looking for additional information, both related to facts, opinions, and new perspectives, will always carry out investigations to complete the existing information to solve various problems he faces so that every teacher, especially lecturers, must have an open mind to seek and receive any information. Nurmaulita, (2014), emphasizes that someone who is not open-minded is shown by a high selfish attitude, is less aware of weaknesses and does not want to accept other people's ideas or opinions.

In addition, the habit of Lecturers of the Social Sciences Education Department at State Universities in Pekanbaru City, in conveying positive ideas, ideas and information to other lecturers, they already have a place to discuss and share knowledge. In this activity, Lecturers of the Social Sciences Education Department at State Universities in Pekanbaru City discussed with each other on various matters, such as learning materials, learning tools, good learning strategies to improve the learning process, even current education issues. Lecturer of Social Studies Education Department at State Universities in Pekanbaru City said that by sharing a lot of insights that can be developed better and will create more actual thoughts. This is in line with the results of Chan (2019) that dialogue and discussion activities can support self-involvement in developing critical thinking patterns that can build and improve the quality of thinking.

The results of the analysis also found that Lecturers of the Social Sciences Education Department at State Universities in Pekanbaru City quite understand the feelings of their friends and understand that everyone's knowledge and abilities are different. The results of this analysis are also in line with Hundial's (2020) opinion that everyone has different abilities both in understanding, thinking skills, and even the ability to process the information they receive. Thus, the critical thinking ability of a lecturer, especially a Lecturer in the Social Sciences Education Department at State Colleges in Pekanbaru City, of course, is adjusted to his level and personal ability in responding to the novelty of ideas and information he receives. ElSaid & Fuentes (2018), the keys to creativity are flexibility, novelty, flexibility, elaboration, and originality. According to Ariyati et al. (2020), the originality category refers to the uniqueness of each response given and produces something new and unique.

**Creative Thinking**

Figure 5 below presents the results of the analysis of the critical thinking skills of lecturers in the Social Sciences Education Department at State Universities in Pekanbaru City.
The results of the analysis of the 4 attributes that affect the lecturer's creative thinking skills show the value of the sustainability index on the self-regulation indicator is 81.25, the value is in the range of 75.01 - 100.00 with a very sustainable.

The results of the leverage analysis show that, of the 4 attributes analyzed, there are two main attributes that have high leverage on the habits of mind of lecturers, namely the attribute generate new ways of seeing situation different form usual ways in general and attributes create, use, improve self-made evaluation standards.

Furthermore, a multi-dimensional analysis was carried out on the 3 indicators used, namely self-regulation, critical thinking and creative thinking. The results of the RapHoM analysis obtained that the sustainability status value was 74.20 which was categorized as quite sustainable. This condition shows that the habits of mind of the lecturer are only in the sufficient category, or can be said to be in a condition of warning or warning for stakeholders. Graphically presented in Figure 7.
These results are validated with a Monte Carlo value of around 73.61 which shows a very small difference of 0.59 or less than 1%. This value indicates that the effect of error, or the impact of scoring errors is relatively small. According to Kavanagh and Pitcher (2004), the Monte Carlo value can be used as a validation value for the impact of random errors. The same thing was also emphasized by Fauzi (2019) that Monte Carlo analysis can be an indicator of errors caused by scoring on each attribute, multidimensional variations in scoring due to different opinions, repeated data analysis processes, and errors in perform data input or missing data.

The validity of the RapWorkplace results can also be seen from the results of the goodness of fit test at the Squared Correlation (R²) value of around 0.8461 or close to 1. The R-square value closer to 1 means that the existing data is mapped more perfectly. This value indicates that more than 95% of the model can be explained well, and the remaining <5% is explained by other factors/attributes. Kavanagh (2001) stated that the Squared Correlation (R²) value of more than 80% indicates that the sustainabilit index estimation model is good and adequate to use. On the other hand, the results of the inaccuracy test (a lack of fit measure) or the stress value obtained 0.1173 or close to 0 (zero). The stress value is close to zero, the more similar the output is to the actual situation or the lower the stress value, the better/fit the model is. On the other hand, the higher the stress value, the less suitable the model is. Kavanagh (2001) states that the tolerable stress value is less than 20%.

The results of this study indicate that Lecturers of the Social Sciences Education Department at State Universities in Pekanbaru City have an attitude of not giving up easily even though it is difficult to find answers or solutions to a problem and always use various ways to do their work. In addition, Lecturers also always try to complete tasks or work by maximizing their own abilities to successfully complete them and learn all things related to the assigned task or job.

Cahyono et al. (2021) emphasize this that by applying good communication, everyone will easily be able to adapt or adjust to changing conditions both in the academic atmosphere and the world of work so that it creates a habit of mind or good thinking habits for himself in increasing confidence self. Martinsen (2011), says that someone who lacks self-confidence tends not to be goal-oriented, does not have high standards and is less interested in new tasks or activities. They also tend to only accept
solutions and set minimum standards which of course lead to limited knowledge in assessing the achievement of their work.

Gurak-Ozdemir et al. (2019), most of the teaching staff have limited knowledge of the importance of evaluating the achievement of performance standards that have been carried out because this is also related to creative thinking skills that must be developed. Teachers have an important role in developing creativity.

Creative lecturers can adapt themselves to situations and conditions, especially during the current pandemic. Learning is no longer focused on face-to-face learning in class, but has led to blended learning and hybrid learning, which implies mastery of digitalization and computing. Creativity can arise by involving discovery, originality, curiosity, imagination, experimentation, and exploration that leads to new and useful ideas. Creativity is also defined as a problem-solving process combined with discovery in finding solutions or producing new things (Fachrunnisa et al., 2021).

Improving teacher creative thinking cannot just appear without motivation, school and service policies, and supporting facilities. The expected motivation is the teacher's willingness to always innovate. Research by Afifa et al. (2021) explained that the use of the ADI (argument-driven inquiry) learning model is capable and effective in improving students' creative thinking skills. In general, innovation can be born from anyone and under any conditions. In addition, the synergy of stakeholders is also very helpful in realizing this. Stakeholders are the key to the success of a school, a school that has weak stakeholders, has an impact on the difficulty of the school to develop (Jatmiko, 2017).

This study tries to measure each of the indicators proposed by Marzano (1994). There are three important results from this study. Indicator values and sustainability status of self-regulation indicators are in the highly sustainable category. Pedrosa et al. (2017) stressed that these self-regulation skills enable students to be proactive and manage their learning well. Hawe et al. (2019) gave the explanation that a teacher, or in this case, a lecturer, should have good self-regulation. A lecturer can produce analysis and good ideas, good feelings, and even good actions that are useful to achieving his goal (Collins et al., 2018).

Further on the critical thinking indicator, the value of the index and the hundredth sustainability are on a fairly sustainable category. These results clearly indicate that it is not optimal for the docent to pour out his critical thinking to the student. Mailool et al. (2020) say that critical thinking is a skill that a teacher must master. If a lecturer does not apply critical thinking skills, then students will not be ready to face the challenges of the future. (Hong & Yu, 2017)

Next findings on critical thinking indicators found results that lecturers have applied critical-thinking skills in learning. This result is marked by index values and sustainability status at 81.25, where this value falls into the highly sustainable category. Al-Dabbagh (2020) said these creative thinking skills played an important role in anticipating learning loss during and after the 19th COVID pandemic. Moreover, Nie et al. (2021) stressed that teachers are required to be able to adapt to learning activities through more creative approaches to produce creative students anyway.

Some time ago, we were faced with a pandemic that changed all of life, not to mention the world of education. (Bozkurt et al., 2020). This condition creates potential learning losses that occur in some parts of the world. (Dorn et al., 2020; Conuto et al., 2021; Moscovis & Evans, 2022). The crisis of decreased learning will not stop, even if the school opens again. (Farren, 2021). Learning loss can go on if governments and schools don't implement a learning capacity recovery policy first. (Gracia & Weiss,
2020). The policy of improving the skills of the habit-of-mind docent is one of the things that a docent does to anticipate learning loss. (Hayat et al., 2019). Through good self-regulation, the lecturer can evaluate each learning outcome in the class to produce more effective and efficient teaching methods. (Schunk, 2023). Thus, the results obtained support previous research.

The university plays a role in generating critical thinking in learning (Cosgun & Atay, 2021). In some countries, lecturers and teachers as agents of new thinking do not seem to understand how to raise awareness of global challenges optimally. (Strakova & Cimermanova, 2018). Like a study conducted by Eze et al (2022), students responded poorly to the critical thinking skills of lecturers in South Africa because lecturers did not master the knowledge of critical thinking. The opinions of previous researchers must strengthen the results of this study, where critical thinking is still a crucial problem to solve.

The results of the study on habits of mind, focusing on three main indicators, self-regulation, critical thinking, and creative thinking, give very significant implications for the future of learning. These findings highlight the urgent need to integrate the development of these thinking habits into the educational curriculum. First, the ability to self-regulate suggests that learning in the future needs to put greater emphasis on developing self-control and emotional management of students, so that they can become independent and effective learners. Second, enhanced critical thinking will have a positive impact on analytical and evaluation skills, which are essential in dealing with complex challenges in the modern era. Third, creativity is the key to generating innovative solutions and thinking beyond conventional boundaries, preparing students for unpredictable challenges of the future. Therefore, implementing learning strategies that support the development of self-regulation, critical thinking, and creative thinking becomes imperative to create a generation that is ready to face the dynamics and complexities of an evolving world.

Although research on habits of mind with a focus on three main indicators—self-regulation, critical thinking, and creative thinking—provides valuable insights, it must be acknowledged that this research has some limitations. First, most research may focus on current observations and analyses without providing a complete picture of how these habits of mind can continue and evolve over time. Second, a lack of understanding of external factors that can affect the formation and maintenance of these thinking habits, such as learning environments and social support, may limit the generalization of research findings. Therefore, in the future, there is a need for policies that support the development and strengthening of lecturer expertise in integrating these three indicators into the curriculum. Training and continuous development for lecturers in the fields of self-regulation, critical thinking, and creative thinking should be implemented so that they can provide more effective guidance to students in developing sustainable thinking habits. Successful implementation of such policies will ensure that future learning not only understands but also strengthens habits of mind as an important foundation for student academic and professional progress.

CONCLUSION

The habits of mind skills of lecturers at state universities in Riau Province are classified as quite sustainable. This condition is certainly a warning that the habits of mid skill of a lecturer are needed in order to increase student interest, motivation and achievement through lecturer habits in transmitting positive thinking habits to students. This research is limited to measuring the level of sustainability in the
application of the habits of mid skills of a lecturer. It is hoped that further researchers will be able to develop scenarios for the actualization of lecturers' habits of mind skills. These habits of mind skills are certainly in line with the Riau Province's SDGs in improving the quality of education in Riau Province.

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