

MODEL OF CRITICAL THINKING CYCLE BASED ON PESANTREN

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Abstract

21st century education must capably answer challenge (Siqueira, 2021) for equipping learners with 4 skills or abbreviated as 4C which includes: communication, collaboration, critical thinking, and problem solving, and creativity and innovation. Cycle Model Learning Critical Thinking is a learning model designed to develop critical thinking dispositions and critical thinking skills simultaneously during learning activities. This model has seven learning phases, including 1) thinking about problems, 2) teaching critical thinking through modeling, 3) seeking and exploring the truth, 4) thinking together by explaining and discussing with experts, 5) conducting implementation trials, and 6.) evaluate critical thinking, 7) meaning. This study aims to explore cycle of critical thinking learning model in Islamic boarding schools. Study this use method study qualitative with using a case study approach (COBER and ADAMS 2020) to analyze the perception and implementation of the based critical thinking learning model boarding school. The population of this study is the whole teacher at Syafiyah boarding school, Indonesia. The result of this research shows that cycle critical thinking-based learning boarding school that is apply 7 stages learning well. The first cycle is thinking about problems, with a score of 352. 2) teaches critical thinking through modeling, with a score of 468. 3) seeks and explores the truth, with score 114. 4) think together by explaining and discussing with experts, with a score of 346. 5) conducting implementation trials, 115 and 6) evaluating critical thinking, 250. 7) Meaning, 231.

Keywords: *cycle model learning, critical thinking, Islamic boarding school*

INTRODUCTION

Think critical is something mandatory ability owned by every self-man (Rich and Rich, 2017) because remember condition increasingly social complex and progress technology information, encourage the rush exchange information not yet verified by maximum (Siqueira 2021), not could verified exchange information with maximum could impact to appearance various problem (Smith and Seal, 2021), not ability Public for criticize truth information obtained could impact to problematic social in various aspect life man (Kavenuke and Muthanna, 2021).

This condition describes how condition Indonesian people today this (Baharun, 2017). So that the community could objectively accept information obtained, critical thinking. Becomes important because will obstruct haste for evaluate the truth of the data so just without knowing.

the source with clear (Taufikin, 2021), besides that think critical could give room for check and reject possible hoax information be in it (Baharun and Maryam, 2019).

Within Islam itself, to ensure the truth of information is called *tabayyun* (Anam et al., 2019). *Tabayyun* interpreted with an action taken to look for clarity about essence, truth, and fact thoroughly with full caution. That is, in Islam every man is demanded and encouraged for always behave carefully, no easily digest and take conclusion from every information obtained without more formerly attempt to prove the truth with clear sources (Ma'Arif, 2018)

21st century education must capably answer challenges (Siqueira 2021) for equipping learners with 4 skills or abbreviated as 4C which includes: communication, collaboration, critical thinking and problem solving, creativity and innovation. Abundant information and technology not yet enough for learners to develop ability to think critically for information that is not spread right through social media. Three skills must have been owned in the 21st century according to p21 (Partnership for 21st Century Learning), namely: life and career skills, learning and innovation skills, and information media and technology skills (Karanja, 2021). Creative skills and ideas will be an invention needed for overcoming life problems (Widodo et al., 2020). Same with that, Ministry of Education and Culture formulate paradigm of 21st century learning that demands learners to know, formulate problem, analyze, collaborate, and complete problem (R&D Ministry of Education and Culture, 2013).

Information could be used to conduct evaluation such as data and sources of information (Lestari, Supardi, and Jatmiko, 2021). Ability for evaluate and then decide is information the Correct or no need Skills think critical (Education, From, and Interests, 2018) because of it is important existence ability in think critical to owned by every self-man especially by the participants educate specifically student.

Related with learning at the Islamic boarding school, Mujamil Qomar think that atmosphere learning in boarding school tend to be passive (Ma'Arif, 2018). This is because creativity and innovation of teachers towards development of the methodology of active learning assumed still minimal, so make power critical students tend to become weak (Baharun and Maryam, 2019)

Besides, using Arabic and or English during learning in several Islamic Boarding School is also one of the factors that delay communication among students with teachers. When there is a question-and-answer session between chaplains and students or discussion among students with other students who require use of one language they tend to be silent or limit themselves to think because of poor language ability (Anam et al., 2019). It is also added with condition of several Islamic boarding schools in Indonesia that have experienced drop quality learning. This is caused by some factors, including the management of boarding schools in general still conventional so that it is not enough to handle various existing problems, especially in the learning management (Kavenuke and Muthanna, 2021).

Scope of learning management alone covers planning, implementation, and assessment for learning. As for this study, it will discuss about planning of learning as preparation in doing learning. Students accept various types of learning islam like learning Arabic language, *nahwu*, *shorof*, monotheism, *fiqh* and so on. So that with learning, it is expected that students are capable of facing social problem if later they go home and take roles in society. However, still many islamic boarding schools that use traditional method like *bandongan* where the main actors are teachers. Students only on duty for listening and taking notes while the teacher plays a role in reading, translating and explaining (Jauharotul, Insiyyah, Sri Jumini, 2019). With this method, it is difficult to shape the ability to think critically (Smith and Seal 2021). Therefore, useful, and interactive learning method is needed to shape critical thinking of the students to be able to solve problems. In addition, when they get new information, they will not easily swallow it but review it more to make sure the information is valid or not.

A number of research about critical thinking have already done. Research conducted by Syamsudin about critical learning in Islamic boarding school (Samsudin 2019), Kusasi about strategy and critical thinking model and development (Kusasi 2016), Implementation method *bahtsul masail* based on education in boarding school for

increasing ability to think critically and ability to analyze conducted in physics class in high school (Insiyyah & Jumini, 2019). However, model of critical thinking cycle based is rarely studied especially in islamic boarding school (pesantren).

METHODS

The method of this research used mixed-method study with using a case study approach (Cober and Adam, 2020) to analyze the perception and implementation of the critical thinking-based learning model at boarding school. Data collection techniques used questionnaires, observation, interview, and documentation.

Instrument questions on the questionnaire about critical thinking cycle model are based on some indicators. 1) think about problems, 2) teach critical thinking through modeling, 3) seek and explore the truth, 4) think together by explaining and discussing with experts, 5) conduct implementation trials, and 6) evaluate critical thinking, 7) meaning.

The instrument is made on a likert scale of 1-5 the number, 5 indicates "Always" 4 indicates " often ", 3 indicates " Sometimes ", 2 indicates " Rarely " 1 indicates " Never", the instrument is distributed to all teachers at pesantren in Sidoarjo via Google Forms.

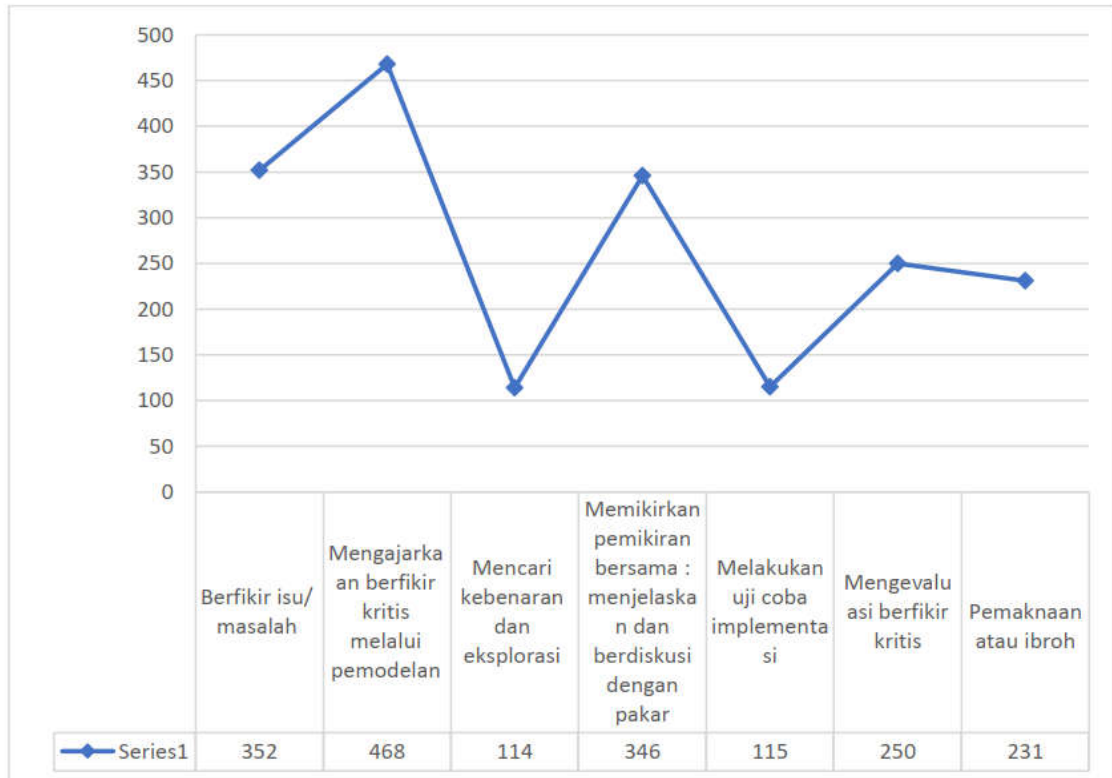
Table 1 Example of Question on Instrument

No	CRITICAL THINKING CYCLE MODEL INDICATORS	Statement
1.	think issue /problem	At the beginning of learning I provide stimulus with giving problems to solve
2.	teach think criticalthrough modeling	I give example to students about material that has been studied
3.	Look for truth and exploration	I give opportunity to students to look for truth with exploration activity
4.	Thinking together: explain and discuss with expert	in learning, students discuss with peer expert /tutor and present the result, and quoting from argument
5.	Do a trial implementation	I serve problem or new questions and help student apply, explain, and extend knowledge as well as skills.
6.	Evaluate and think critically	I reflect all learning steps to develop abilities to think critically
7.	Give meaning	At the end of learning, I give opportunity to student to give meaning or <i>ibroh</i> in every problem that has been solved

RESULTS AND DISCUSSION

Based on results data analysis related to cycle model critical thinking-based learning boarding school rated good. Under this is data that shows results from cycle model research think critical based on boarding school.

Table 2
Chart from indicator Cycle Learning Based Critical Thinking Boarding School



Cycle model critical thinking-based learning boarding school has 7 indicators. From each indicator shows good value. The tallest acquisition score 468 is on cycle 2nd i.e. teach think critical through modeling. The most interesting is cycle 7th, i.e the meaning and ibroh that show characteristic typical learning in Islamic boarding schools.

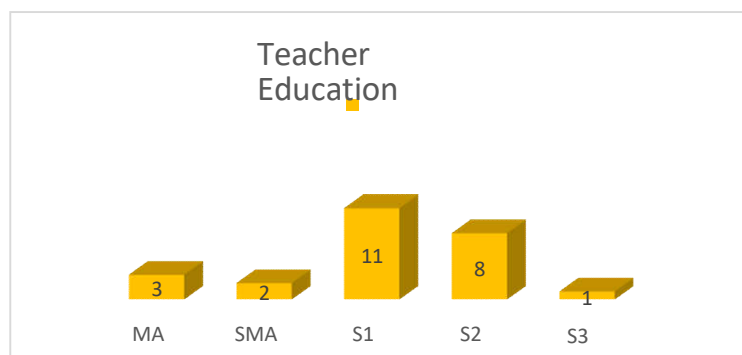


Chart 1 Level of Teacher Education in Islamic Boarding School

Think Issues/Problem

According to Komalasari (2013) learning based on problem are a learning model that uses real world problems as something contextual for student. They may also apply critical thinking and problem-solving skill as well as get essential knowledge and concepts from subjects learned.

In this stage, Islamic Boarding School of Shafiiyah also practice this problem-based learning model. This is expressed by the teacher or Ustadz KH. Ali Mustajib at the time of interview, he says:

"In every learning at the boarding school, always started with think based on problem, however, our customize with the theme in the book that will be studied".

This is also proven with results of observation and documentation researcher.

Teach Critical Thinking through Modeling

In this second stage, the teacher apply critical thinking skill through modeling. The teachers stimulate students to think critically as revealed by Mrs. Isro'iyah. She says in interview:

"Every learning here, always use modeling, for example, when practice pray corpse or curing corpse. Especially in learning Fiqh that already certain use modeling".

This is also proven from results of questionnaire distributed to teachers, and the results is 468.

Digging for the Truth

In Stage 3, the cycle is exploring the truth. The teachers at the Asy Syafiiyah Islamic boarding school always apply the phase of seeking and digging for the truth, through the Qur'an and Hadith. This was expressed by M. Ainur Ridlo that:

"We always apply stages dig truth, because learning in boarding school based on the Qur'an and Hadith, if deviate from that, then learning will is repeated until truly in accordance with the Qur'an and Hadith".

The result of the questionnaire also shows score 114, which means it is done well with stages search and dig the truth, so that students always think critically.

Think Together by Explaining and Discussing with Experts

In Stage 4, the cycle is thinking together by explaining and discussing with experts. The teachers at the Asy Syafiiyah Islamic Boarding School always apply this phase. In the learning process, they always invite the experts for discussing learning materials. This is conducted to get truth and think critically by bringing older or senior class and experts in their fields. This thing is revealed by Agus Sofa, who is a chairman of administrator of the boarding school. In the interview, he says:

"In this boarding school, older class teach younger class already becomes a culture, both male and female students. Older class teach younger class, one level below in accordance with the field. This is conducted especially when they study together called "Taqrar" like peer tutors."

Carrying Out Implementation Trials

In stages 5, it is called doing a test run, with doing a trial. Students can increase their ability to think critically. This stage is always done by the teachers in the Islamic boarding school. After getting material, students requested for doing a test or implementation. This thing expressed by Ustadzah Khusnia Ali, S.

"Santri here me emphasize for apply what has been he learned, and really apply, if no

applied, then will be exposed takzir/punishment. what its function mondok if only as knowledge and not implemented. That his name science that is not useful”.

And this is also proven from results of questionnaire showing score 115, which means conducted well.

Evaluating Critical Thinking

Stage 6 is to evaluate critical thinking skill. This is also done by the teacher in the learning process at the Islamic boarding schools. This is done automatically since every learning applies a reflection. This is proved from results of questionnaire with acquisition score 250, this show the step is conducted well.

Make and Give Meaning (Ibroh)

In stages 7, students are directed to make meaning in the learning process. This becomes characteristic or typical learning in Islamic boarding schools, namely: meaning or *ibroh*. This has been a mandatory step to do because every learning and every problem have meaning and contain wisdom in life. This is expressed by KH. Muhaimin Al Hafidz.

“Every problem certain there is wisdom, then our Required contemplating Thing what is the wisdom in loyal lesson, phase this applied to every end learning. So that students think critically and know what to expect conducted after get meaning learning for life.”

This is also proven from results of the questionnaire that received acquisition score 321, which means learning in this stage conducted well.

From differences and similarities from existing research, novelty of this study it's on the cycle model of critical thinking learning and conducted in boarding schools that have not studied in related journals. In the boarding school, the assessment process gets good findings related to the cycle model that is new since in Islamic boarding school has always apply the meaning making or *ibroh*.

CONCLUSION

Based on the results of this study, it is seen that the critical thinking cycle-based model applied in the boarding school is very valid and reliable. At cycle 7, meaning or *ibroh* obtained 231 which means good. Future study should develop cyclemodel of critical thinking learning which consists of seven stages, that is think problem, teach critical thinking through modeling, search truth and exploration, think together and discuss with expert, trial implementation, evaluation, meaning. The next study should more focus on understanding the effectiveness of the critical thinking cycle model for increasing performance study.

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