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## **PENINGKATAN KEMAMPUAN METAKOGNITIF MELALUI MODEL READING QUESTIONING ANSWERING (RQA) BERBANTUAN JURNAL PEMBELAJARAN PADA PROGRAM STUDI PENDIDIKAN NON-FORMAL**

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**Abstrak:** Keterampilan penting yang diidentifikasi oleh UNESCO untuk abad ke-21 tetap terkait dengan empat pilar pendidikan, antara lain: 1) belajar mengetahui (learn to find out), 2) belajar melakukan (learn to do), 3) belajar menjadi (learn to be personal), and 4) learning to live together in peace (belajar untuk hidup bersama dalam kedamaian). Salah satu keterampilan yang harus diberdayakan melalui proses pembelajaran di perguruan tinggi yaitu keterampilan metakognitif. Tujuan dari Penelitian ini Peningkatan Kemampuan Metakognitif Melalui Model Reading Questioning Answering (RQA) berbantu Jurnal Belajar Pada Matakuliah Masalah Sosial dan Pembangunan". Metode penelitian ini eksperimen bertipe kuasi. Hasil penelitian tentang pengaruh model RQA (Reading Questioning and Answering) berbantuan Jurnal belajar terhadap kemampuan metakognitif Mahasiswa pada pembelajaran masalah sosial dan pembangunan, maka dapat disimpulkan bahwa terdapat pengaruh model pembelajaran RQA (Reading Questioning and Answering) berbantuan jurnal belajar terhadap hasil belajar metakognitif mahasiswa dengan analisis gain score menunjukkan bahwa adanya perbedaan persentase Gain Score yang signifikan. Perbedaan nilai persentase gain score yang didapat dari keduanya. Grup control mendapatkan persentase sebesar 10% dengan kategori tidak efektif. Sedangkan grup eksperimen memiliki persentase G-Score 60% dengan kategori cukup efektif. Hasil penerapan pembelajaran dengan RQA berbantuan jurnal belajar efektif dalam meningkatkan keterampilan metakognitif mahasiswa.

**Kata-kata Kunci:** Metakognitif, RQA, Non-Formal Education.

## **IMPROVING METACOGNITIVE ABILITY THROUGH THE READING QUESTIONING ANSWERING (RQA) MODEL ASSISTED WITH LEARNING JOURNALS IN NONFORMAL EDUCATIONAL STUDY PROGRAMS**

**Abstract:** The important skills identified by UNESCO for the 21st century remain related to the four pillars of education, including: 1) learning to find out, 2) learning to do, 3) learning to be personal, and 4) learning to live together in peace (learning to live together in peace). One of the skills that must be empowered through the learning process in higher education is metacognitive skills. The aim of this research is to increase metacognitive abilities through the Reading Questioning Answering (RQA) model assisted by learning journals in social and development problems courses." This research method is a quasi-experimental type. The results of research on the influence of the RQA (Reading Questioning and Answering) model assisted by learning journals on students' metacognitive abilities in learning social and development issues, it can be concluded that there is an influence of the RQA (Reading Questioning and Answering) learning model assisted by learning journals on students' metacognitive learning outcomes with Gain score analysis shows that there is a significant difference in the Gain Score percentage. The difference in the percentage value of the gain score obtained from the two. The control group got a percentage of 10% in the ineffective category. Meanwhile, the experimental group had a G-Score percentage of 60% in the quite effective category. The results of implementing learning with RQA assisted by learning journals are effective in improving students' metacognitive skills.

**Keywords:** Metacognitive, RQA, Non-Formal Education.

## INTRODUCTION

Life today is increasingly complex which is influenced by the development of technology and science. The speed of information flow and the increasing awareness of social interaction methods make the need for new competencies mandatory to be mastered by the community. Therefore, through the curriculum, universities continue to improve their graduates by paying attention to graduate competency standards. This standard is a criterion for the competence of graduate expertise which includes attitudes, knowledge, and skills (PP No. 13 of 2015; Permendikbud No. 20 of 2016). Graduates who are expected after taking higher education are to have abilities, skills and act such as: 1) creative, 2) productive, 3) critical, 4) independent, 5) collaborative, and 6) communicative, through a scientific approach to educational units and as a further development independent of what is learned from other sources. (Minister of Education and Culture Number 20 of 2016).

The essential skills identified by UNESCO for the 21st century remain linked to four pillars of education: 1) learn to find out, 2) learn to do, 3) learn to be personal, and 4) learn to live together in peace (learn to live together in peace.) Specific skills that need to be grown, developed, and empowered in learning activities, including metacognition, communication, collaboration, and various other skills (Scoot, 2015; Zubaidah, 2016). These skills are the pillars of education and in Indonesia plus the 5th pillar, namely: learning to strengthen faith, piety and noble morals (Ministry of Education and Culture, 2017).

One of the skills that must be empowered through the learning process in higher education is metacognitive skills. The advantage of this skill is that students are able to be more efficient and have more power in learning through thinking strategies, organizing information, managing information sources and applying approaches in maximizing the way of thinking. (Hammod: 2003). The inability of students to master graduate competencies can be due to their inability to maximize how to learn through metacognitive skills. This illustrates that the current need for metacognitive skills is needed to be mastered by students through learning in higher education.

Based on observations and learning experiences, it has been found that there are weaknesses in mastering concepts in the Social and Development Problems course at the Non-formal Education Study Program FKP Universitas Bengkulu. The learning achievement of this course is that students are able to analyze knowledge of social problems that exist in the community so that later they can provide solutions to the community in the form of training and therapy, then solve problems with problem analysis techniques that exist in the community. In addition to these weaknesses, researchers also found the phenomenon that students have not been able to identify various components that support Social and Development Problems. So that this situation causes students to have limitations to develop knowledge about Social and Development Problems. In addition, this course also supports the mission of the Non-Formal Education study program which reads to carry out community service.

In the Social Problems and Development course, learning has never been carried out that empowers students' metacognitive abilities or skills, while metacognitive abilities in a person in self-reflection can encourage cognitive development, metacognition of thinking, behavior and student learning outcomes (Setiawan & Suliso 2015) In addition, this metacognitive skill is the awareness of one's thinking calm down his own thought process, while conscious thinking is a person's awareness of what is done (Mulbal 2008) metacognitive is nothing but an awareness of thinking within a person so that he can perform specific tasks and then use that awareness to control what is done.

To answer the demands of the 21st century, students must be prepared to face them, in addition to students who must be prepared, educators must also be present as a direction to direct students to be able to have skills according to the demands of the times. Students here are not only students but also at a higher level of students, because students are prospective agents of change or commonly known as agents of change. Basically, improving the quality of education must boil down to the learning process if the learning takes place well if previously the design has been designed intentionally to achieve learning objectives.

The learning process is one of the

educators' efforts to achieve the desired learning, which can increase students' understanding of one concept. In accordance with the opinion (Nazliah: 2018) the learning process is basically a transformation of knowledge, attitudes and skills by involving physical and mental activities. Learning is also an important process related to one's changes as a result of experience (Black & Schwartz, 2015), a good learning process will play an important role in the quality of education that has an influence on the development and progress of a country (Masiono & Nino, 2018), with it should be in the learning process to make learning and experience for individuals to Being better than before becomes swampy than before, thus everyone will become good human resources for the progress of their country.

In its implementation, classroom learning involves several main components, namely lecturers, students, and learning materials. In education, in order for the learning process activities to take place and can be processed and processed as well as possible, educators need to apply various models, approaches, methods and appropriate ways so that learning material is delivered effectively and efficiently to students (Prayitno, 2009) in addition to this in the implementation of learning carried out in formal educational institutions today there are still many who use conventional learning (Augustin:2011)

Conventional learning is characterized by lecturers, teachers or educators teaching more about learning concepts instead of competence in learning, the goal is that students are only able to know the learning material instead of being able to understand the learning material, and during the learning process students listen more. The conventional approach dominates the teacher because it does not work creatively, effectively and pleasantly. This is not in accordance with the purpose of the independent learning curriculum where students become happy with the learning methods provided.

Learning should be a meaningful activity, namely liberation to actualize all human potential, not vice versa, we often encounter teaching failures and results due to students who are less active and understand the material may be caused by models, strategies of lecturers or teachers who are not up-to-date so that students become saturated in the learning process. For this

reason, lecturers or educators need to improve the learning process both with models, strategies and even references used. In addition, the lack of causality of learning outcomes is the task of educators to improve the way of teaching.

Furthermore, it is also explained that using metacognitive knowledge or abilities has better achievement because metacognitive knowledge allows students to plan, follow the development and monitoring of the learning process (Brsilitia et al, 2013), for that there needs to be a model that supports students to better understand each learning process and be able to design their own understanding, the Reading Questioning Answering (RQA) model) is RQA considered a learning model based on constructivist learning theory. According to Haerullah and Usman (2013: 181) said the RQA learning strategy, students are assigned to read certain material. Furthermore, on the basis of comprehension of the reading, students are asked to make questions in writing and answer them themselves. The substance asked is important or very important related to the reading material, while the number of questions is adjusted according to the circumstances. Questions and answers are created in groups, presented and responded to by other students.

The Reading, Questioning and Answering (RQA) learning model can help empower students' metacognitive knowledge which leads to the ability of students to be able to monitor student learning themselves, become managers of themselves and become assessors of their own thinking and learning with the stages of the Reading, Questioning and Answering (RQA) learning model, namely reading, questioning (ask) and answer. Furthermore, according to Pierce (Fauzi, 2013: 23), said that summarizing will not only increase students' understanding, but will also help them monitor their understanding.

Metacognitive ability to monitor students' own learning outcomes using certain models, in order to learn and remember can develop. Identifying important ideas by underlining or finding keywords in reading material, then stringing them into one sentence, forecasting results, making a list of questions from reading material then answering them yourself, distinguishing between substantial and non-substantial things from reading material, distinguishing deciding how to use time and repeating

information are some forms of higher-order thinking skills strategies, so that the advantages of learning models Reading, Questioning and Answering (RQA) can be known.

## RESEARCH METHODS

This research will use a type of qualitative research in the form of quasi-type experiments. The principle of this type of research is to know the results of giving actions to certain sample groups. The group in this study consisted of controls and experiments. The choice of the type of quasi-experimental research is because the sample type is PNF students who are studying in the Non-formal Education programs that are not randomly selected. These circumstances allow some variables in the sample to go uncontrolled.

In this study, the division of research groups will be carried out into control groups and experimental groups. The control group is a group of students who are given learning activities as usual. While the experimental group is a group of students who are given learning activities with the help of learning journals. The design of this study can be illustrated in Table 3.1.

Table 3.1 Research Design

Group	Pretest	Treatment	Posttest
KK	O1	X1	O2
KE	O1	X2	O2

Information :

KK : Control group

KE : Experimental groups

X1 : Treat with conventional learning

X2 : Behaviour by using RQA strategi  
(Reading, Questioning,  
and Answering)

O1 : Pretest administration

O2 : Posttest administration

In this study, evaluation activities will be carried out in the form of tests twice at the beginning and end. The difference between O1 and O2 will be assumed to be the effect of experiments carried out on the group.

### 1. Research Procedure

Procedure The steps in this study are outlined as follows :

1. Preparatory stage: Determination of Population and Sample, as well as preparation for making teaching materials and research instruments.
2. The *pre-test stage* was carried out an initial test to determine the initial knowledge of Class A (Experiment) students totaling 24 students and in class B (Control class) totaling 24 students.
3. The implementation stage is carried out learning activities using the RQA (*Reading, Questioning, and Answering*) strategy in the

experimental class and in the control class no treatment is given.

4. The *post-test stage* is carried out a final test to determine the end of student learning in the treatment class and control class.
5. The data analysis phase of data analysis was carried out using SPSS statistical analysis 20 between *pretest* and *post-test results in experimental and control classes*.
6. The hypothesis test stage is drawn conclusions to reject or accept hypotheses based on *pretest and post-test results in experimental and control classes*.
7. The stage of drawing conclusions after the researcher's hypothesis is tested, then conclusions are drawn.

### A. Data Collection Techniques

According to Sugiono (2010: 137) data collection techniques are ways that can be used by researchers to collect data. In this study, data collection will be carried out with test techniques. The instrument used is a test sheet that is prepared based on a study of metacognitive knowledge and skills material. The grid of metacognition skill questionnaires is shown in the following table :

No	Indicator	Description
1.	Planing	The chosen strategy in carrying out learning activities, completing tasks
2	Monotoring	The chosen strategy in carrying out learning activities, completing tasks
3	Evaluating	Plan and evaluate the learning process that has been carried out
4	Revising	Create or select a plan for future improvements

### B. Data Analysis

The data analyzed are the result of an assessment of the basic knowledge of the metacognitive skills education profession. Both of these data have quantitative types that will be analyzed with several tests. The following analysis of research data will be carried out :

#### 1. Data Normality Test

The normality test uses the descriptive statistical test of the SPSS program version 23.00. The use of parametric statistics requires that the data of each variable analyzed must be normally distributed (Sugiyono, 2011: 171). Normality test using Kolmogorov-Smirnov test (One Sample K-S). According to Triton (2006: 79) data is said to be normal if the probability or (Sig.) > 0.05.

#### 2. Homogeneity Test

The homogeneity test is used to determine whether the sample used comes from a



homogeneous population or not. The way used to find out homogeneity is by comparing the two variances.

### 3. Uji Gain

The normalized gain test (N-Gain) was conducted to determine the improvement of students' cognitive learning outcomes after being given treatment. This increase is taken from the pretest and posttest scores collected by students. The calculation of normalized gain score (N-Gain) can be expressed in the following formula:

$$g = \frac{Sf - Si}{100 - Si} \times 100\%$$

Information :

$g$  = gain ternormalisasi (N-Gn)

$Sf$  = Skor Posttest

$Si$  = Skor Pretest

The magnitude of the effect of providing learning journals on educational professional knowledge and metacognitive skills can be analyzed using the effect size test. According to Cohen (Dali S. Naga, 2005: 2), the magnitude of the effect size is the average difference expressed in standard deviation with the following formula.

Information :

$d$  = effect size  
 = normalized average gain experimental classes (N-Gain)

$d_{GK}$  = normalized average gain experimental classes (N-Gain)  
 = normalized average gain Control Class (N-Gain)

The criteria for effect size according to Cohen (Dali S. Naga, 2005: 2) can be seen in table 3.2.

Tabel 3.2 Effect Size

Effect Size	Criterion
$0 < d \leq 0,2$	Small effects
$0,2 < d \leq 0,8$	Medium effect
$d > 0,8$	Great effect

Source : Dali S. Naga (2005: 2)

### C. Success Indicators

Indicators of success in this class action research are as follows:

1. Student learning outcomes are said to increase or succeed if  $\geq 75\%$  of all students achieve A grades (85-100).

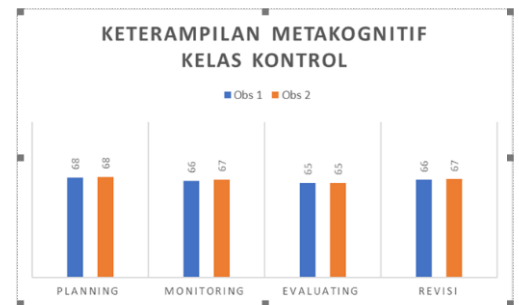
**The implementation of RQA-based learning is said to be successful if the level of learning implementation reaches at least 80%..**

## RESULTS AND DISCUSSION

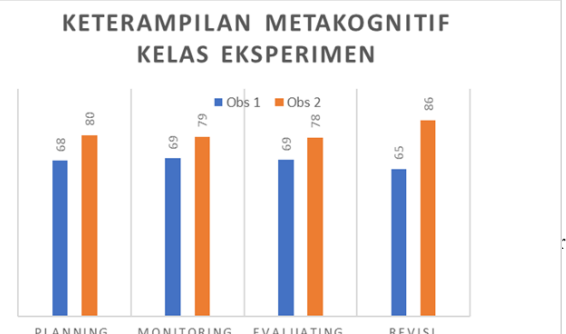
### Result

This research was carried out in the Non-formal Education study program, precisely for students in semester VI (Six)

FKIP Unib in the 2022/2023 academic teaching. In its implementation, the researcher compares class A as class (Expression) and class B as class (Control), the stages carried out by researchers are carrying out the O1 test (initial Observation) in class Control (B) and Class Experiment (B) then researchers apply RQA assisted journal learning in class experimental (A) while class control (B) is not applied RQA. Through 3 meetings, researchers presented learning journals in the Introduction class (A), then the meeting at the end of the researcher gave an O2 test (Observasi 2)



to the Division class and control class to be able to see how much RQA significant assisted learning journals can help students in the formation of metacognitive abilities. Here's the researcher show O1 test result (Observasi awal) dan tes O2 (Observasi 2) on graph 1.1 Class A (Epreciation)



Planning showed 68% and Observation 2 80% increased by 25%. Furthermore, in the monitoring of Observasi 1 69% observasi 2 79% there was an increase of 10%, Evaluation Indicator Observasi 1 69% observation 2 78% and in the indicator Revision observasi 1 65% and observasi 2 86% there was an increase of 20%.

Skills :

Obs 1 : Observation of early Metacognitive Skills

Obs 2 : Observation of Final Metacognitive Skills

Grup Persetase Katagori

Kontrol 10% Tidak Efektif

Eksperimen 60% Cukup Efektif

The results of the Observation 1 and 2

activity control classes showed that the Planning indikator menunjukkan 68% dan Observasi 2 68% tidak terjadi perubahan. Selanjutnya pada monitoring Observasi 1 66% observasi 2 67% terjadi peningkatan 1%, Indikator Evaluasi Observasi 1 65% observasi 2 65% tidak terjai peningkatan and in the indicators Revision observasi 1 66% and observasi 2 67% increased by 2%.

With the differences above, it can be seen that the RQA method can be used to improve student learning abilities, with RQA students being asked to be more creative and hone the metacognitive abilities of each student.

### **Analysis Result Gain Score :**

Based on the results of the gain score analysis in Table 1. shows that there is a significant difference in the percentage of Gain Score. Table 1 data can be Gives an idea of the difference The percentage value of gain score obtained from both. The control group got a percentage of 10% with ineffective categories. While the experimental group has a G-Score percentage of 60% with a fairly effective category. The results of implementing learning with RQA assisted learning journals are effective in improving students' metacognitive skills.

Table 1. Results of Data Analysis of Metacognitive Skills of Two Groups

The results showed that through the RQA (Reading Questioning and Answering) learning model assisted by learning journals on cognitive learning outcomes, there was an influence of the RQA (Reading Questioning and Answering) learning model assisted by learning journals. In line with Lashari et al., (2017) said that RQA is a newly developed model based on the fact that almost all students assigned to read learning materials related to future learning always do not read. As a result, the learning model designed is difficult or not implemented, and in the end the understanding of learning material becomes low or even very low.

The implementation of the RQA learning model has proven to be able to force students to read the assigned material, so that the designed learning model can be implemented and understanding of the learning material has been increased almost 100%. Meanwhile, according to Bahtiar, (2013) the RQA learning model forces students to read and understand reading content, seeks to find substantial or very

substantial reading content, makes questions, and answers the questions they make, more likely to strengthen the cognitive of students. The same opinion as (Syarifah et al., 2016) one constructivistic learning strategy that has the potential to empower metacognition skills and cognitive learning outcomes of students is the Reading Questioning and Answering (RQA) learning strategy.

The RQA learning model is considered a learning model based on constructivism learning theory (Maulida & Mayasari, 2019). To empower students' cognitive learning outcomes on basic teaching ability material can be done using the Reading Questioning and Answering (RQA) learning model based on learning journals.

The Reading Questioning Answering (RQA) model is a learning approach that combines three important stages: reading, formulating questions, and answering questions based on reading material. This approach aims to improve students' understanding of the text they are reading and also improve their metacognitive abilities, i.e. their understanding of how they learn and understand information. Through the use of the RQA model assisted learning journals, students can actively engage in the learning process, formulate in-depth questions, and reflectively monitor their understanding.

This can help improve their metacognitive abilities as they get used to thinking about how they learn and process information. However, it is important to remember that each learning approach needs to be tailored to student characteristics and learning objectives. Continuous evaluation and adjustment is necessary to ensure that this approach is effective in improving students' metacognitive abilities.

## **CONCLUSION**

Based on data analysis of research results on the influence of the RQA (Reading Questioning and Answering) model assisted by learning journals on students' metacognitive abilities in learning social and development problems, it can be concluded that there is an influence of the RQA (Reading Questioning and Answering) learning model assisted by learning journals on student metacognitive learning outcomes with Gain Score analysis shows that there is a significant difference in the percentage of Gain Score. The difference in the percentage

gain score obtained from the two. The control group got a percentage of 10% with ineffective categories. While the experimental group has a G-Score percentage of 60% with a fairly effective category. The results of applying learning with RQA assisted learning journals are effective in improving students' metacognitive skills.

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