

THE INFLUENCE OF LITERACY WITH THE GUIDED INQUIRY MODEL IN PRACTICING STUDENTS' SCIENCE PROCESS SKILLS

AT MI ROUDLOTUL FALAH

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Abstract: *Literacy is the ability to access, understand, and use something intelligently through various activities or activities, including reading, seeing, listening, writing and speaking. Science Process Skills (KPS) is a learning approach oriented to science learning. This study aims to study the Effect of Literacy and inquiry proses on Science Process Skills of Students at MI Roudlotul Falah Kalisat District of Rembang, Pasuruan Regency. This type of research is a quantitative approach. The type of research approach is descriptive quantitative, namely research to give a description of the symptoms, phenomena, or facts examined by describing the value of independent variables, without intending to connect or compare. Data collection methods used in this study were observation, interviews, documentation and questionnaires. From the results of the study, the Influence of Literacy and inquiry proses on the development of Science Process Skill Students have a value of 78.190%, thus the variable shows sufficient category. This means demonstrating that Literacy Against the Development of Science Process Skill is quite influential for Students at MI Roudlotul Falah.*

Keywords: *Literacy; inquiry proses; Science Process Skills.*

Abstrak: Literasi merupakan kemampuan mengakses, memahami, dan menggunakan sesuatu secara cerdas melalui berbagai kegiatan ataupun aktivitas, antara lain membaca, melihat, menyimak, menulis dan berbicara. Keterampilan Proses Sains (KPS) merupakan pendekatan pembelajaran yang berorientasi kepada pembelajaran IPA. Penelitian ini bertujuan untuk mempelajari Pengaruh Literasi Terhadap Keterampilan Proses Sains Siswa Di MI Roudlotul Falah Kalisat Kecamatan Rembang Kabupaten Pasuruan. Penelitian ini menggunakan penelitian kuantitatif. Adapun jenis pendekatan Penelitian deskriptif kuantitatif yaitu penelitian untuk memeberikan uraian mengenai gejala, fenomena, atau fakta yang diteliti dengan mendeskripsikan tentang nilai variable mandiri, tanpa bermaksud menghubungkan atau membandingkan. Dari hasil penelitian menunjukkan Pengaruh Literasi dan inquiry terbimbing terhadap perkembangan Ketermpilan Proses Sains Siswa memiliki nilai 78,1%, dengan demikian variabel tersebut menunjukkan katagori cukup. Ini berarti mununjukkan bahwa Literasi Terhadap perkembangan Ketermpilan Proses Sains cukup berpengaruh bagi Siswa di MI Roudlotul Falah.

Kata Kunci : *Literasi; inquiry terbimbing; Keterampilan Proses Sains.*

INTRODUCTION

School literacy in the context of the School Literacy Movement is the ability to access, understand, and use things intelligently through various activities or activities, including reading, seeing, listening, writing and or speaking. (Sutrianto: 2016, 2). Process Science Skills (KPS) is the ability of students to apply the scientific method in understanding, developing and discovering science. The Science Process Skills Approach (KPS) is a learning approach oriented to the IPA process. KPS is very important for every student as a provision to use the scientific method in developing science and is expected to acquire new knowledge or develop the knowledge that has been owned. In the process of Practicum-Based Learning will be generated Science Process Skills because from the Science Process Skills

that students are expected to be able to observe grouping / classification, interpret, forecast, ask questions, formulate hypotheses, plan experiments, use tools and materials, apply concepts and communicate. In relation to process skills. (Nuryani: 2005, 77) IPA learning begins by paying attention to the student's initial conception / knowledge that is relevant to what will be learned. Furthermore, learning activities are designed through various real activities. It is through these real activities that students can develop process skills and scientific attitudes. Several things that must be considered in science learning in elementary school include: 1) development of curiosity, 2) development of science process skills, 3) growth of environmental awareness, 4) development of life skills, 5) hands on and minds on learning, and 6) developing creativity. From the problem of lack of quality of the teaching and learning process and judging from the lack of interest in reading students and the lack of activeness of student learning in the classroom, researchers are interested in conducting research with the title "The Effect of Literacy on Science Process Skills in MI Roudlotul Falah Kalisat District Rembang Pasuruan Regency". With the formulation of the problem, How does literacy affect the skills of the science process in MI Roudlotul Falah Kalisat District Rembang Pasuruan Regency?

Understanding Literacy and inquiry learning models

Literally, literacy means literacy whereas in terms, literacy includes all the abilities a person or a community needs to take part in all activities or activities related to texts and discourses. (Gol A Gong & Agus M. Irkham: 2012, 51.) This school literacy program is very helpful for the school because it can help students in the school have regular reading habits that are then developed into useful writing. In addition to accustoming and cultivating reading and writing in schools, this activity can also discipline students in complying with school rules and regulations.

Understanding inquiry

The term inquiry comes from English which means question or inquiry. Inquiry can basically be viewed as a process for answering questions and solving problems based on facts and observations. Inquiry learning is a teaching strategy designed to guide students how to research problems and questions based on Kardi facts (2013). As for some understanding of Inquiry according to experts as follows:

Hamalik (2003) states that the inquiry learning model is a student-centered and teacher-centered strategy. This learning model requires students to find an experience as well as scientists who discover and develop knowledge. Brickman (2009) Inquiry model is a way of presenting lessons that involve many students in mental processes in the framework of their discovery. The Arends (2012) Inquiry is a model that has been developed aimed at teaching students how to think. The process of planning the inquiry learning required is to determine the objectives and determine the problems that are suitable for the investigation process. Teachers want students acquire new knowledge related to investigation and study the investigation process especially related to scientific investigation.

According to Widiowati (2012) in a journal entitled HOT Science Learning by Applying Inquiry Laboratory stated that inquiry is something that is done to find answers that match the questions tested. When students are confronted with the questions presented in the questions, then students prefer the question if it is associated with a series of directions in the inquiry activity. Looking at some understanding from experts, it can be concluded that inquiry learning is learning that teaches students in the process of thinking to learn scientific inquiry by finding

an experience as scientists who discover and develop knowledge and involve students in mental processes in the framework of their discovery.

The main objective of the inquiry model is a) maximum student involvement in the process of learning activities; b) the direction of activities logically and systematically; c) develop an attitude of confidence in students about what is found in the inquiry process, Trianto (2007). From the above understanding, it can be concluded that inquiry learning is a student-centered learning and emphasizes on providing experience to students to explore, research, formulate problems and test the truth and conclude problems. Inquiry is used when the learning objective is in the form of developing high-level skills and not just material understanding. Material understanding needs to be possessed by students but mastery or development of high-level thinking skills needs to be the focus in learning. Inquiry model is implemented in 6 stages as shown in Table 1:

Tabel 1
Syntax for Inquiry Learning

Fase	Perilaku Guru
The first phase, Get attention and explain the investigation process or inquiry process.	The teacher prepares students to learn and describes the learning process that will be carried out.
The second phase, Present inquiry issues or appropriate events.	The teacher shows the student an appropriate problem or event
The third phase, Ask students to formulate hypotheses to explain problems or events.	The teacher asks students to ask questions of the problem situation and make hypotheses about what will happen.
The fourth phase, Encourage students to collect data to test hypotheses.	Teachers ask students how they can collect data to test their hypotheses. On the same issue, in the experimental class can be done.
Phase five, Formulate explanations and/or conclusions.	Teachers direct students to find solutions by drawing conclusions or generalizing.
The sixth phase, Reflect on problematic situations and the thought processes used to investigate them.	Teachers ask students to think according to their own thought processes and reflect on the Inquiry process.

(Arends, 2012:343)

The six stages of inquiry learning have an important role in the learning process in the classroom. Inquiry learning not only teaches the purpose of high-level thinking skills but also teaches product goals that are also important in the learning process. The first purpose of inquiry learning is to develop students' ability to recognize the problem reflected in the second phase, which is to present a problem, the second is to suggest a temporary solution reflected in the third phase in the form of hypothesis formulation, the third is to identify and collect

relevant facts reflected in the fourth phase, which is to gather information to test the hypothesis that has been made by the student and the fourth goal is Critically students can also assess the problem solving of the question tested reflected in the fifth phase in the form of explanations and conclusions of the problems that have been tested.

Literacy Goals

The general purpose of the School Literacy Movement is to develop the ethics of students through the culture of the school literacy ecosystem embodied in the School Literacy Movement so that they become lifelong learners. (Nur Zazin: 2014, 17) With this literacy activity, it is hoped that students can have a good personality judging from actions, words, attitude thoughts and feelings.

Literacy Stages

According to Yunuf A,et al (2017: 281) explained about the stages of implementing the school literacy movement consisting of three stages, including:

Stage 1: Habituation of fun reading activities in the school's excommissioning.

Stage 2: Development of reading interest to improve literacy skills.

Stage 3: Literacy-based learning. Literacy activities at this stage aim to develop the ability to understand texts and associate them with personal experiences.

Types of Literacy Programs

The types of activities or steps of activities can be said to be an activity if it meets five criteria, first, there must be people who follow the activity. Second, what methods or methods are given in the activity. Third, where the activity is carried out. Fourth, the implementation time given, and fifth, what materials are given in the activity. (Mustofa Kamil: 2010, 14-15.)

Literacy program is an activity held in schools, literacy is divided into several stages, including basic literacy, library literacy, media literacy, technological literacy, and visual literacy. In this case, the author explains about the types of school literacy activities that are included in basic literacy, namely reading and writing. (Abbas Ersis Warmansyah: 2008, 43)

Science Process Skills

Keterampilan Proses Sains (KPS) merupakan metode ilmiah yang didalamnya Train the steps to find something through experiments and experiments. KPS is a learning approach that is summarized into 5 M (observing, menanya, reasoning, concluding, and communicating). So, the skills of the science process are experimenting skills, scientific methods, and ingrained. (Septi Budi Sartika, Journal: ISBN 978-602-70216-1-7 October 24, 2015). Process skills developed for elementary /MI students in science lessons consist of nine aspects, namely: (1) Observing skills (2) Measuring (3) Interpreting (4) Forecasting (5) Using tools and materials (6) Classifying or grouping (7) Applying concepts (8) Communicating (9) Asking questions

Research Methods

Types of Research

Judging from the type of data, the research approach used in this research is a quantitative approach. As for what is meant by quantitative research, which is research focused on the study of objective phenomena to be reviewed quantitatively. (Musfiqon: 2012, 59) This type of research approach is quantitative descriptive. Quantitative descriptive research is research to explain the symptoms, phenomena, or facts studied by describing the value of independent variables, without intending to connect or compare. (Musfiqon: 2012, 61)

Population and Sample

The sample in this study was all students of the 3rd grade of MI Roudlotul Falah Kalisat District Rembang Pasuruan Regency.

Research Instruments

In this study, the questionnaire method was used to obtain data on the Influence of Literacy on Student Science Process Skills at MI Roudlotul Falah Kalisat District Rembang Pasuruan Regency.

The implementation is that researchers distribute questionnaires to MI Roudlotul Falah Kalisat students who have been determined by researchers.

Data Collection Techniques

In the implementation of data collection, the author uses Field Research (field research). As for this study, the author used the method: (1) Observation Method (2) Interview Method / Interview Questionnaire (3) Documentation Method (4) Questionnaire, some of the subjects of this study are 3rd grade mi Roudlotul Falah Kalisat students on the influence of literacy on the development of Student Science Process Skills.

Data Analysis Techniques

To analyze the data in this study, the author performed the following steps: (1) Editing, In analyzing the data, the first thing to do is editing. (2) Scoring, the Author scores the items of statement contained in the questionnaire. (3) Tabulating, The next step is the calculation of the data that has been obtained using simple statistics. (4) Percentage, This calculation is used to find out the small success rate obtained from the results of the spread of lifts about the influence of literacy on the development of science process skills in MI Roudlotul Falah Kalisat. The number obtained by the frequency of answers divided by the number of respondents multiplied by 100% by the statistical formula. Percentage with the following formula: $P \frac{F}{N} \times 100$

Keterangan :

P : Angka Presentase

F : Frekuensi Jawaban Responden

N : Jumlah Responden.

100 : Angka tetap. (Anas sudjono: 2010, 43)

Data analysis techniques are data that has been described with information so that the data can be understood by others who are interested in the results of this study. For the interpretation of the values obtained, interpretation is used as proposed by Suharsimi Arikunto,

baik (76% - 100%),
 cukup (56 % - 75%),
 kurang baik (40% - 55 %)
 tidak baik (kurang dari 40%).
(Suharsimi Arikunto: 2010, 246)

As for determining the percentage, the author uses the following simple calculations:

Determine the Value of Hope (NH).

This value can be known by multiplying the number of items with the highest score.

Calculating Score Value (NS)

This value is the actual average value obtained from the results of research.

With the formula as my give, which is:

$$\frac{NS}{NH} \times 100\%$$

RESEARCH RESULTS

The entire kouesioner data that the author has disseminated through questionnaires about the influence of literacy on the development of science process skills formed in 7 (seven) aspects. The scores of each aspect amount to, as in the following table, yaitu:

Tabel 4.1

Score 7 (seven) Aspects of Questionnaires The Influence of Literacy on the Development of Science Process Skills

No	Aspect	Score
1	Literacy Planning	298
2	Literacy Organizing	599
3	Literacy Briefing	497
4	Literacy Supervision	181
5	Design Process Skills	593
6	Facilities and infrastructure	525
7	Student learning activities	591

Tabel 4.2

Description of Teacher Perception Data The Effect of Literacy on the Development of Science Process Skills

No	Variable	Aspect	Indicator	Number of items	Score
1		1. Literacy Planning	Planning activities	3	298

	Teacher Planning The Influence of Literacy on The Development of Design Process Skills		that Related with step- planning steps		
		2. Literacy Planning	• Planning activities related to planning requirements • Organizing activities related to literacy • Organizing activities related to delegation	6	599
		3. Literacy Briefing	• Briefing activities related to literacy	4	497
		4. Literacy Supervision	• Supervision activities related to literacy activities	2	181
2	Development of Science Process Skills	5. Science Process Skills	• Softening of science process skills development	5	593
		6. Facilities and infrastructure	• Tersedianya fasilitas penunjang pembelajaran	5	525
		7. Student learning activities	• Memperbaiki proses belajar mengajar	5	591
Jumlah				30 item	3284

DISCUSSION OF RESEARCH RESULTS

This research was carried out at MI Roudlotul Falah, with the title The Influence of Literacy on Student Science Process Skills, this research method uses quantitative methods, as for this type of research approach is quantitative descriptive.

Tabel 4.3
Average Research Score
Literacy Pedaling To The Development of Science Process Skills
At MI Roudlotul Falah kalisat

Aspect	Score	Nilai harapan (NH)	Nilai Skor (NS)	$\frac{NS}{NH} \times 100\%$	Information
1. Planning	298	3X7 = 21	298 : 20 = 14,9	$\frac{14,9}{21} \times 100\%$ = 70.95	Good
2. Organizing	599	6X7 = 42	599 : 20 = 29.95	$\frac{29.95}{42} \times 100\%$ = 71.30	Good
3. Briefing	497	4X7 = 28	497 : 20 = 24.85	$\frac{24.85}{28} \times 100\%$ = 88.75	Excellent
4. Supervision	181	2X7 = 14	181: 20 = 9.05	$\frac{9.05}{14} \times 100\%$ = 64.64	Enough
5. Science Process Skills	593	5X7 = 35	593: 20 = 29.65	$\frac{29.65}{35} \times 100\%$ = 84.71	Good
6. Educational Facilities and Infrastructure	525	5 X 7 = 35	525: 20 = 26.25	$\frac{26.25}{35} \times 100\%$ = 75	Enough
7. Student learning activities	591	5 X 7 = 35	591 : 20 = 29,55	$\frac{29.55}{35} \times 100\%$ = 82.85	Good

Tabel 4.4
Research Average Value
The Effect of Literacy on the Development of Science Process Skills di MI Roudlotul Falah Kalisat

Indicator	Score	Nilai Harapan (NH)	Nilai Skor (NS)	$\frac{NS}{NH} \times 100\%$	Information
The Influence of Literacy on the Development of Science Process Skills at MI Roudlotul Falah Kalisat	3284	30 X 7 = 210	3284: 20 = 164.2	$\frac{164.2}{210} \times 100\%$ = 78.190	ENOUGH

CONCLUSION

From the average score table above, it shows the influence of literacy on the development of the leadership of the student science process has a score of 78,190%, thus the variable shows enough category. This means that it is shown that Literacy towards the development of Science Process Leadership is quite influential for Students

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