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Analysis of the *Among* System-Based Discovery and Inquiry Learning Models

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Abstract
This study compares the syntax of the discovery learning and inquiry learning models based on the *Among* system. This research was a descriptive type of research and used a comparative design. The method of data collection in this research was a literature study. The literature study used is research that is in accordance with the research of researchers and the latest research. The results found that the learning model of discovery learning and inquiry learning based from the *Among* system was very well implemented in elementary schools. The use of these various models can be adapted to the needs of the educator. Along with the literature study, these two models can support students' abilities and create meaningful learning for students.

Keywords: *discovery learning, inquiry learning, Among system*

1. INTRODUCTION

Education is important for life. Education is one thing that guides the future and changes a person's mindset. This point is in line with the opinion (Alpian et al., 2019) that the role of education is enormous in developing reliable Human Resources and being able to compete with fellow humans in a healthy manner.

During life, we are always in an educational environment. The first educational environment we get is in the family (Informal Education), the school environment (Formal), and the community environment (Non-formal). In Indonesia, formal education is Elementary School, Junior High School, and Senior High School.

As attested by Piaget, children aged 6-12 years are in the autonomy morality stage, characterized by children judging behavior on the basis of the underlying goals. Rigid and inflexible ideas about right and wrong learned from parents are then modified. At the elementary school level, teachers must be able to shape students' character.

In formal education, teachers must be able to make students understand the material. Teachers must also be innovative in teaching the material. The opinion expressed by (Irwana, 2020), teachers must be able to use innovative

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learning methods so that learning objectives are appropriately achieved. A learning model is required that can improve students' understanding as well as hone students' character at the same time.

One of the teacher's models is discovery learning and inquiry learning.

As stated by Durajad (2008), discovery learning is a theory that is defined as a learning process that occurs not presented with lessons in final form but by the students who organize it. In reference to Effendi (2012), discovery learning involves students in problem-solving for the development of knowledge and skills. So, discovery learning is a learning process that does not equip all learning materials. However, students are assigned to arrange themselves so that students can develop their knowledge and skills to solve problems.

Hosnan (2014) elaborated that inquiry Learning emphasizes the process of searching and finding. This model is a series of learning activities that encourage students to learn to seek, find and investigate a problem.

Teachers need a system that can support students' understanding and character to develop simultaneously to hone students' character. This matter is why the *Among* system is needed in learning. The *Among* System is associated with *Tut Wuri Handayani* (Firdianah, 2013). It serves to develop the potential for creativity, taste, and initiative of students so that students become independent and valuable children for society.

In conformity with some of the problems described above, the researcher wants to compare the syntax of discovery learning and inquiry learning based on the *Among* system.

2. LITERATURE REVIEW

Discovery Learning

Discovery learning is a method that includes observing, searching, understanding, explaining, constructing conclusions, and so on (Patandung, 2017).

As mentioned by Yuliana (2018), discovery learning is an approach where students are directed to get a conclusion from a series of activities so that students find their knowledge. Kristin (2016) elucidates three main characteristics of the discovery learning model: student-centered, exploring and solving problems to create, connect and generalize knowledge, and an activity to combine new and existing knowledge.

The advantages of discovery learning, according to (Balqist, 2019), are 1) Helping students to improve and improve skills and cognitive processes, 2) Generating pleasure in students because the investigation was successful, and 3) Directing students to their learning activities by involving reason and motivation. 4) helps students strengthen their self-concept by gaining confidence in cooperating with others, 5) student-centered, and 6) helps students eliminate doubts because it leads to definite truths. Disadvantages of discovery learning, with reference to Balqist (2019), are 1) for less

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intelligent students, it will cause feelings of depression, 2) this model has a little difficulty if the number of students is significant, and 3) it takes a long time.

Petandung (2017) states that the discovery learning model consists of 6 main steps, namely 1) Stimulus or stimulation, 2) Problem identification, 3) Data collection, 4) Data processing, 5) Proof, and 6) Concluding.

Inquiry Learning

Hanafiah & Suhana (2012) define inquiry Learning as a learning model to investigate student development in an adaptive and generative way. Inquiry Learning is learning that maximally involves students' ability to investigate systematically, logically, critically, and analytically so that students can formulate their findings (Trianto, 2006). Inquiry Learning is student-centered learning, where a group of students is given a problem then the group of students looks for answers following the procedures and structures set (Oemar Hamalik, 1999). Inquiry Learning has been utilized for a long time, and many scientific and technological discoveries have helped improve human life (Rohayani, 2018). Inquiry Learning steps start from orientation, formulating problems, collecting data, testing hypotheses, and formulating conclusions (Hartono, 2013).

The advantages of inquiry learning Damayanti (2014) include: 1) the development of cognitive, affective, and psychomotor aspects is highly emphasized; 2) give freedom to students to learn according to their abilities; 3) in keeping with the psychological development of students; 4) learning is under the abilities of students who are smart and less intelligent so that less intelligent students will not hamper smart students.

Among System

The *Among* system comes from the Javanese language, namely *mong* or *momong*, which means to take care of children (Wangid, 2009). Educators in the *Among* system are called tutors, and Ki Hajar Dewantara initiated this system. The *Among* system is essential in elementary schools because this is where educators will form students' character.

The *Among* system is an education system that requires educators to remember and attach importance to the nature of students and not forget all the circumstances surrounding them. The "*command, coercion and punishment*" commonly applied in ancient education must be replaced with the rule "to guide and support students to grow because of their nature and bring students closer to nature and society (Tauchid, 1972).

The application of Ki Hajar Dewantara's *Among* system was formulated into 3, namely *Ing Ngarsa Sung Tulada* (in front should set an example), *Ing Madya Magun Karsa* (in the middle should take initiative and be cooperative), and *Tut Wuri Handayani* (at the back should give support).

Ki Hajar Dewantara uses three methods in teaching character: the first method of *ngerti*, which means giving students as much understanding as possible. The meaning in question is good and bad

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attitudes and taught the rules that apply in society, nation, state, and religion. The second is the method of *ngerasa* means students try to understand the knowledge they have acquired. Students must be able to distinguish between right and wrong. The third method is *ngelakoni* means accomplishing all actions and responsibilities that have been thought of as a result based on the knowledge obtained (Yanuarti, 2017).

The punishment undertaken by the *pamong hasur* is limited to three rules; namely, the punishment must be in line with the mistake, the punishment must be done fairly, and the punishment must be given immediately (Ki Hajar Dewantara, 1997).

According to (Hayati, 2018), there are several components teachers must develop to strengthen the *Among* system, namely: 1) Constructivism, 2) Nature's Nature, 3) Independence, 4) Parables, 5) Research, 6) Cooperation, and 7) Reinforcement.

In this research, the component of among system are contained in the RPP.

3. METHOD

This type of this research is descriptive research. It is a study that aims to describe existing events, both natural and artificial events. The event can be in form, activities, characteristics, changes, similarities, and differences between one event and another (Sukmadinata, 2011).

The research design used was a comparative study. The comparative study is a method that seeks to compare the similarities and differences of two or more facts, and properties of the object under study derived from a specific framework of thought (Hudson, 2007).

The researcher undertaken the literature study method to acquire the data needed in the study. As uttered by Nazir (2003) literature study is a data collection technique by reviewing books, literature, notes, and reports related to the problem to be solved.

4. RESULTS AND DISCUSSION

This study aims to compare the syntax of discovery learning and inquiry learning models derived from the *Among* system in improving student learning outcomes.

Table 1 presents and compares the syntax of the *Among* system-based discovery learning and inquiry learning models.

Based on the results of research conducted, discovery learning models based among system and inquiry learning based among system well applied to improve student learning outcomes in elementary school. Beacause two models can encourage students to active that learning will be more meaningful for student.

The function of among system is to improve student character. That's way discovery learning based among system and inquiry learning based among system can improve learning outcomes and also character in students.

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Table 1. Syntax of the *Among* System-Based Discovery Learning Model and Inquiry Learning

Stages	*Among* System-Based Discovery Learning Model	*Among* system-based Inquiry Learning
Introduction	At this stage, the teacher greets and checks the students' attendance. Next, the teacher invites the students to pray led by the class leader. If there are students who play in prayer, the educator directs students to repeat the prayer solemnly. Educators advise students about the benefits of praying. To invite students' excitement, educators may lead students to sing together. At the stage of singing along, including the first component in the *Among* system (Constructivism). Students answer questions from educators related to material that serves to stimulate them. This question is also included in the fourth component of the *Among* the system. The teacher forms students into several groups.	At this step, the teacher greets and checks the attendance of students. Next, the teacher invites the students to pray led by the class leader. If there are students who play in prayer, the educator directs the students to repeat the prayer solemnly. The teacher advises students about the benefits of praying. To make students enthusiastic, educators invite students to sing together. At the stage of singing together, it is the first component of the *Among* (Constructivism) system.
Core	The first is the provision of stimulation; at this stage, the educator throws some questions to encourage students so they can find information about the material to be studied. This stage is also comprised of the second component of the *Among* (Natural Nature) system. Then the teacher distributes the tools and materials for learning.	The first is orientation. At this stage, the teacher gives questions in accordance with the material related to the material to be studied. This stage is included in the fourth *Among* system component (the parable).

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The second is the problem identification stage or problem statement; at this stage, the educator distributes LKPD related to the material being studied. Students write down the hypothesis of the LKPD and educators encourage students to work on it. This activity possesses the third component in the *Among* (independence) system.	The second stage is to formulate the problem. The questions given by the educator are expected to be able to supply students with hypotheses while students are unrestrained to answer them. This stage is included in the third *Among* system component (Independence).
The third is data collection. The students are free to discuss and conduct experiments using tools and materials that have been provided by educators in each group. This activity retains the sixth component of the *Among* (cooperation) system.	The third stage is data collection. Students conduct experiments on the material being studied. At this step, it joins the fifth component of the *Among* (Investigation) system.
Fourth is data processing. The students execute experiments and write down the results of experiments that have been done with their groups. This activity is included in the fifth component (investigation). Each group proposes the results of their LKPD answers in front of the class.	The fourth stage is to test the hypothesis. At this stage, students work together to test the hypotheses that have been built. This stage is included in the sixth component (cooperation).
The fifth is proof or verification, the students and educators conclude about the material being studied.	The fifth stage is composing conclusions. At this stage, students perform group discussions about the outcomes of experiments that have been carried out. This stage is included in the sixth Among system component (cooperation).

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Closing	Educators reward students for having followed well. In the closing activity, the teacher also equips constructive advice to students. The teacher opens a question and answers session for students who do not apprehend the material. This question-and-answer session is included in the seventh component of the *Among* (Strengthening) system. The teacher invites students to perform classroom cleaning operations. The teacher greets and prays together before ending the lesson.	Educators reward students for having followed well. In the closing activity, the teacher also equips constructive advice to students. The teacher opens a question and answers session for students who do not apprehend the material. This question-and-answer session is included in the seventh component of the *Among* (Strengthening) system. The teacher invites students to perform classroom cleaning operations. The teacher greets and prays together before ending the lesson.

This research is in line with Rahayu & Fitriyani's (2022) study entitled Improving Learning Outcomes with the Discovery Learning Model for Class V Elementary School Students. The result revealed that the Discovery Learning Model application enhanced student learning outcomes.

Research by Juniati & Widiana (2017) entitled Application of the Inquiry Learning Model to Improve Science Learning Outcomes illustrated that the research is the inquiry model advanced student learning outcomes.

5. CONCLUSIONS

Based on the results of research, can concluded that the use of discovery learning based among system and inquiry learning based among system can improve outcomes learning students and also character in student. Outcomes learning can be seen from the test results and character assessment can be seen from the results of observations. Educators can adjust to the needs and goals to be achieved.

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