THE INFLUENCE OF INQUIRY LEARNING STRATEGY ON THE LEARNING OUTCOMES OF INFORMATICS EDUCATION STUDENTS STKIP PGRI SUMBAR

Regina Ade Darman, Yusran

[1,2]Informatics Education Department, STKIP PGRI SUMBAR
reginaade1986@gmail.com [1], yusranse@yahoo.com [2]

ABSTRACT

view from the experience of teaching during this time, there are still many students who have not been able to develop thinking skills. The average student learns only rely on the knowledge of the lecturer, without wanting to seek knowledge in various ways. This is reflected in the results of student learning is still low. This study was designed using quasi experiment. Inquiry learning strategy is a learning strategy that emphasizes the searching and finding process. The study population is all students of informatics education who have taken the computer network course. Determination of sample by purposive sampling technique followed by random sampling method. The measurement instrument is validated by an expert, followed by a test run to the student. The results showed that the students' learning outcomes that were taught using inquiry strategy (experimental class group) were higher than the student learning outcomes taught by conventional strategy (control class group).

Index Terms— inkuiri strategy, learning outcomes, the effect

PRELIMINARY

Education in Indonesia is needed to develop Science and Technology (Science and Technology) which is useful to expand knowledge while technology as a supporting factor of such knowledge. In this case educators have an important role as educators to direct learners into the learning process so that they can obtain learning objectives in accordance with what is expected. Learning is a process undertaken by a person to gain a whole new behavioral change, as a result of his own experience in interaction with his environment (Slameto 2003: 2). Learning is a process of behavior change actively, the process of doing through various experiences, and processes directed to a goal. Learning outcomes are the abilities students have after learning experiences (Nana Sudjana, 1989: 23). Bloom in Martinin Yamin (2009: 27) classifies the form of behavior as a result of learning into three aspects, namely cognitive, affective and psychomotor.

Learning is a conscious and deliberate effort by educators to make students learn by activating internal factors and external factors that also affect the achievement of learning outcomes. Internal factors derived from within students include psychological and physical factors. External factors derived from the learning environment include atmosphere, climate, learning culture, place of learning and learning strategies applied by educators. The learning strategy consists of all components of the learning materials and the stages of learning activities used by educators in order to help learners achieve certain learning goals (Dick and Carey in Hamzah B Uno.2010: 1). Learning strategies applied by educators are an external factor in learning The selection of strategies relates to the success of learning to be achieved. Judging from the experience of teaching during this time, there are still many students who have not been able to develop thinking skills. The average student learns

only rely on the knowledge of the lecturer, without wanting to seek knowledge in various ways. This is illustrated from the results of student learning is still low This is not in accordance with the learning character of computer network is able to develop basic process skills that involve students actively in the learning process so as to achieve optimal learning outcomes both understanding concept, science process skills and scientific attitudes. Inquiry learning strategy provides immediate experience to students and involves activating students to find their own concepts. nquiry learning involving student activeness, students are encouraged to learn actively with concepts and principles for themselves. Inquiry learning involves mental processes, formulating problems, hypotheses, designing experiments, conducting experiments, collecting data and analyzing data and drawing conclusions. According to Gulo (2002) in Trianto (2007: 135) states that the strategy of inquiry means a series of learning activities that involve maximally all the students' ability to search and investigate systematically, critically, logically, analytically so that they can formulate their own discovery with confidence self.

The main targets of inquiry learning are: 1) maximal student involvement in the learning process, 2) logical and systematic activity harassment on learning objectives, 3) develop student self-belief about what is found in the inquiry process. Inquiry not only develops not only intellectual ability, but develops all existing capabilities, including emotional development (Gulo in Trianto, 2007: 137) The implementation of inquiry learning is as follows: 1. Asking questions or problems 2. Formulating hypotheses 3. Collecting data 4. Data analisys 5. Concluding Funk (1985) in Dimyati and Mudjiono, (1999: 140) suggests that there are various skills in process skills, the skills can be classified into two: basic skills skills and integrated skills Integarted skill). Basic process skills include 6 activities: observation, classifying, predicting, measuring, summarizing, and communicating.

RESEARCH METHODS

The type of research is quasi experiment which uses two classes namely experiment class and control class. Quasi experimental research means that research is done on pre-existing classes, and there is no need to create new classes in research. The experimental class is treated by applying Inquiry learning strategy and control class using conventional strategy. This research was conducted on the informatics education students STKIP PGRI West Sumatra.

The population of this study is all students of class of 2017 informatics education STKIP PGRI West Sumatera odd academic year 2016/2017. This study uses two classes as a sample, one class as an experiment and one more class as a control. Selection of sample class is done by purposive sampling technique that is based on emotional intelligence test result. The two selected classes had an average score of emotional intelligence that did not differ significantly (t-test)

The selection of the experimental and control class is done by random sampling with the cra of writing the class name in the paper, then rolled, then shuffled and taken one between the two, the first chosen as the experimental class.

In this research data collected by giving test instrument and nontes, hence steps that will be done are: (1) Preparing instrument, instrument that will be used to know result of learning, student; (2) Selecting two subject groups, experimental groups and control groups; (3) Systematic data collection, systematic data collection in accordance with the previous plan, the implementation of treatment in the experimental group, the application of inquiry strategy, while the control group is not given special treatment because the learning is carried out as usual. After completion of treatment (experiment) then both groups of samples were given a test of the essay to see the results of learning.

This test can be made in essay form and consists of several items that have met the requirements. Test of learning outcomes conducted after the experiment ended, this test aims to obtain data learning results and then analyzed to answer the problem research.

The independent variables in the experimental group were given a certain treatment, namely the learning with inquiry strategy, while in the control group, the treatment given was the usual treatment done

by the lecturer, that is by conventional strategy.

Furthermore, in order that the research design is sufficient to test the hypothesis and that the results obtained can be generalized to the population, it is necessary to control its validity in the implementation of the treatment, both internal validity and external validity.

This research was designed using quasi experimental method. As stated in the previous description that the use of experimental quasi method is chosen according to the characteristics of the problem to be studied. In essence, the quasi-experimental method can be used to see the effect of learning strategies on learning outcomes of differences in scores obtained by both groups. But there are other factors that influence learning outcomes that are difficult to control during the course of research, so it is necessary to choose the analytical techniques in accordance with the characteristics of design and research methods.

RESULTS AND DISCUSSION

From the results of hypothesis testing, it is known that the overall use of Inquiry Learning Strategy gives a greater influence on student learning outcomes. Based on the research results, the application of inquiry strategy can improve the learning result of computer Jarinngan. The average learning outcomes of computer jarinngan after the implementation of the overall Inquiry strategy is higher than that of the computer on the conventional strategy. This is seen from the average experimental class of 72.92 while the average value of the control class is 68.61. The highest score of the experimental class is 90.00 and the lowest score is 55.00. While in the control class the highest score is 80.00 and the lowest score 55.00.

The test results stated that the learning result of Jarinngan computer group of students who were taught by using inquiry strategy was significantly higher than the result of student learning taught by conventional strategy. This is because the application of inquiry strategies on learning computer Jarinngan can provide learning concepts that emphasize the process of finding and finding, where students seek and find their own learning materials. Students are required to think critically and analytically to seek and find their own answers to a questionable problem. The process itself is done through question and answer lecturers and students.

This condition often makes classroom as a means to show healthy competition among students. In the experimental classroom the atmosphere is very prominent, seen from the students are very eager to find the concept of the material being studied as well as possible. Based on the results of interviews with several students revealed that with the application of stratgi inquiry students have a desire to master the material more deeply, in order to find a more meaningful concept.

In the experimental class the students seemed eager to learn in their group or community learning to find out information, ask and discuss, fill in worksheets, and find concepts. In addition, many students are asking about the given material and also the supporting books needed to find the concept. Unlike the control class, the students are less eager to follow the lesson. Students only listen to the lecturer's explanation then record and accept only the material described, the student who asks it is the same student at each meeting. When lecturers ask students to work in groups, many of the students are incomplete in completing group assignments to construct the material provided, and are less likely to ask if they find it difficult to discuss the discussion concepts. Even some students do things that are contrary to learning activities.

In the experimental class the students seemed eager to learn in their group or community learning to find out information, ask and discuss, fill in worksheets, and find concepts. In addition, many students are asking about the given material and also the supporting books needed to find the concept. Unlike the control class, the students are less eager to follow the lesson. Students only listen to the lecturer's explanation then record and accept only the material described, the student who asks it is the same student at each meeting. When lecturers ask students to work in groups, many of the students are incomplete in completing group assignments to construct the material provided, and are less likely to ask if they find it difficult to discuss the discussion

concepts. Even some students do things that are contrary to learning activities.

Students who follow learning with inquiry strategies have a high chance of expressing the knowledge they gain. This is because in learning they are free to seek and collect the necessary learning resources, in addition they are also free to make the best conclusions from the sources they get. To learn something is not enough to read, hear and see. Students not only hear information from the lecturers, but also see what is explained by the lecturer and the last of the students activity is melakkannya and try directly so that students will be motivated to learn.

So it is clear that learning with inquiry learning strategy is better than the result of learning with conventional strategy. A learning that can motivate students to be mutually motivated to understand the material that has been presented by lecturers so that later students are able to create and simultaneously answer the problems when faced with a problem, so embedded for students to show more ability and make himself the best. In addition to feeling motivated this learning also trains students to be responsible for the tasks that are entrusted to him, because the students not only listen to information from lecturers, but also see what is explained by the lecturer and the last of the student activities is to do or try, and find the meaning of the material directly.

FINALE

Based on the results of hypothesis analysis and testing that have been described on the previous page, it can be concluded that students who are taught with inquiry learning strategy as a whole obtain learning outcomes Computer network higher when compared with student learning outcomes taught by conventional approach. Thus it can be said that inquiry learning strategy is more effective done in giving lessons Computer network to students in order to improve student learning outcomes.

Based on the findings obtained from this research, then some suggestions put forward into input and thought as follows lecturers should be able to choose the appropriate learning strategies in the learning process. Learning with inquiry learning strategy is an effective model used in order to improve student learning outcomes in computer network courses. By using this inquiry strategy is expected lecturer can improve the development of creativity, the ability to express opinions, thinking power of learners and motivation learners learners of the course Computer network.

Lecturers should be able to understand and recognize the principles of the use of inquiry learning strategies so as to arouse student interest in accordance with student's learning habits and differences. In adopting the results of this study also need to be careful, because this inquiry strategy has a unique characteristic that is not possible to match all the characteristics of other subjects.

REFERENCES

Slameto. 2003. Belajar dan FaktorFaktor yang Mempengaruhinya. Jakarta: Rineka Cipta

Aina Mulyana. 2015. Pengertian Hasil Belajar dan Faktor-faktor yang Mempengaruhinya. (online), (http://ainamulyana.blogspot.co.id), diakses 10 April 2016).

Anggareni. 2013. "Implementasi Strategi Pembelajaran Inkuiri terhadap Kemampuan Berpikir Kritis dan Pemahaman Konsep IPA Siswa SMP". E-journal Program Pascasarjana Universitas Pendidikan Ganesha, Vol.3, Tahun 2013, http://ejournal.undiksha.ac.id , 10 April 2016.

Asep Kurnia. April 2010. " Penerapan Model Pembelajaran Inkuiri untuk Meningkatkan Pemahaman Siswa tentang Peristiwa Benda Padat dalam air Melalui Kegiatan Praktikum". Vol.1, No. 13, Jurnal Pendidikan Dasar, http://file.upi.edu , 10 April 2016.

Oemar Hamalik. 2005. *Proses BelajarMengajar*. Jakarta: BumiAksara

Trianto. 2007. *Model-model Pembelajaran Inovatif Berorientasi Konstruktivistik*. Jakarta: PrestasiPustaka