

## **Implementation of scientific approach and teacher affective learning strategy of PAI in increasing student learning achievement**

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### **Abstract**

This study aims to determine the application of scientific approach and affective learning strategy of Islamic education teachers in improving student achievement. This research used qualitative method, used observation, interview or document review. The data presented in verbal form was not in the form of numbers. Based on the results of research and discussion can be concluded the application of scientific approach by teachers Islamic education in Sekolah Dasar Negeri Plumutan and Madrasah Ibtidaiyah Darussalam Bancak was observing, asking, exploring, associate and communicate. Affective learning strategies in public primary Sekolah Dasar Negeri Plumutan and Madrasah Ibtidaiyah Darussalam Bancak done in two ways, the pattern of habituation and modeling or modeling. Implementation of scientific approach and affective learning strategy of learning Islamic education strongly support the success in improving student achievement. The result of this research showed that effectively and efficiently in accordance with the stages of learning with scientific approach and affective learning, then the purpose of learning can be achieved.

**Keywords:** scientific approach, affective learning strategy and student learning achievement

## INTRODUCTION

One of the tasks that teachers have to do at school is to provide services to the students so that they become students in harmony with the school's goals. Among the services provided by teachers is to use a scientific approach. The scientific approach is a learning process designed to enable learners to actively construct concepts, laws or principles through observing stages, formulating problems, formulating hypotheses, collecting data with various techniques, analyzing data, drawing conclusions and communicating the finds (Daryanto, 2014: 51).

To strengthen the scientific approach needs to be applied affective learning strategies. The notion of a learning strategy is the basic design for a teacher about the way he brings his teaching to the class responsibly (Isjoni, 2007: 3). Then affective learning strategy is a learning strategy related to attitudes and values (Sanjaya, 2016: 273). Attitude is closely related to the value a person has. The process of education is not only shaping intelligence or providing certain skills, but also shaping and developing attitudes so that children behave in accordance with the norms in society.

A scientific approach and an affective learning strategy can be applied to all subjects, including PAI lessons. The establishment and development of attitudes and moral of a student through PAI in school becomes very important because it becomes part of the learning objectives that must be done PAI teachers in improving student achievement. Learning achievement is the student's success in learning the subject

matter in school which is expressed in the form of score obtained from the test result about certain subject matter (Shah, 2008: 91). To find out whether or not someone in learning then need to do the assessment.

One interesting phenomenon related to the approach and strategy of learning PAI in SD Negeri Plumutan and MI Darussalam Bancak is in 2014-2015. In the year 2014 the average value of PAI both the value of report cards and test scores can be said to be low. Then in 2015, the average value of report cards and examinations increased. This is because the approach and learning strategies conducted by teachers run well. As for the problem in the research here is about how the application of scientific approach and affective learning strategies in learning PAI in SD Negeri Plumutan and MI Darussalam Bancak.

Muhammad Syukri Salleh explained about the fundamental requirements in preparing the Islamic education strategy there are two. First, on the nature of Islamic institutions. Second, on the strategy in improving Islamic education itself. The beliefs of Islamic institutions are firmly entrenched in Islamic philosophical and epistemological foundations, reflecting by all deeds, from the management of teaching and learning methods and research methodologies (Salleh, 2013: 1-12). Halim Tamuri explains the teaching of moral values in PAI is an important aspect in the integrated curriculum for secondary schools in Malaysia aimed at developing individual potentials in a balanced and integrated manner, covering aspects of intellectual, spiritual, emotional and physical in order to create a balanced human and harmonious with high moral standards

(Tamuri, 2007: 371-386). The research is still around the theory of learning strategies, therefore there needs to be research on the implementation of learning strategies in schools significantly.

Albrecht Fuess describes the model of Islamic religious education in public schools throughout Western Europe and explains future teacher training of PAI and future imams in secular state institutions in Western European countries with large Muslim communities (Fuess 2007: 215-239). Albrecht Fuess's research is still around PAI learning model used by teachers, therefore there is need for research on different learning model, that is affective learning model (attitude).

Ricard Yuretich et al discusses teaching methods that are often recommended for improving the learning environment in colleges including cooperative learning, adding inquiry-based activities for traditional lectures and attracting students in projects. The results of the student survey, evaluation and performance for the exam indicate that the subject's learning condition has improved. Achieved and statistically significant student achievement (Yuretich, 2001: 111-119). Adel Sharaf describes about Muslims making a significant contribution to the rise and development of scientific thinking. Islam views science and natural studies in addition to the basic principles of Islam. Therefore, Islamic scholars were encouraged, initiated and developed a scientific understanding of nature throughout the Islamic congregation, especially during the eight to sixteen centuries before the colonization of the Muslim world (Adel Sharaf, 2013: 272-282).

As for the differences above research with this research is, the above research is still around the theory of instructional strategies, therefore the need for research on the implementation of learning strategies in schools significantly. Then the above research on affective learning alone, for that researchers need to do a different research, namely about a scientific approach by using affective learning strategies to support the process of learning PAI learning.

## **RESEARCH METHODOLOGY**

This type of research is field research. The author conducted research directly in SD Negeri Plumutan and MI Darussalam Bancak. This research uses qualitative approach. The method used in this research is descriptive method. The location of this research took place at SD Negeri Plumutan and MI Darussalam Bancak, Bancak Subdistrict, Semarang Regency, Central Java, 50182. For the time of the research started on March 1 until April 2017.

Primary data sources in this study were student report cards, student exam scores and PAI teachers. While secondary data source in this research is principal and student. Data collection techniques in this study by way of observation, the authors make observations directly to the object of research. Then the authors conducted direct interviews with PAI teachers and principals. Furthermore, documentation, this method writer use to get written data about history of establishment, state of teacher and student, objective data of school, condition of labor, condition of facilities

and infrastructure and data of scientific approach and affective learning strategy of teacher of PAI in improving achievement learn students in written form.

## RESULTS AND DISCUSSION

### **Scientific Approach of Islamic Religious Education Teachers**

The steps taken by the teacher of PAI in SD Negeri Plumutan before carrying out the scientific approach that is, the first teacher start the learning by saying greeting, praying, conveying the topic of discussion, then convey the facts that occur in society related to the material to be learned, to the students and convey the learning activities that will be implemented (Khusna, 2017: 6 March). The goal is that students can analyze and understand the substance of the material learned so that it can apply in everyday life in accordance with the teachings of Islam. The science-based PAI learning activities in SD Negeri Plumutan implemented as follows:

*First*, observe, the teacher plays a video about the obligatory prayers. Furthermore, students perform observation activities based on their respective groups (Khusna, 2017). Based on the author's observation, observation activities conducted by PAI teachers in SD Negeri Plumutan implemented students carefully. That's because the teacher gives an interesting material introduction and the video presented by the teacher is clear, so the students curiosity grows. *Second*, the teacher asks the students to ask questions about the observation of mandatory salat which is not

understood by the students. From the author's observation, about the process of scientific approach in SD Negeri Plumutan is appropriate. This can be seen in the theory that the standard of assessment on the new curriculum is certainly different from the previous curriculum, since the objective of the 2013 curriculum is to encourage active students in each learning material. Then one component of student value is if the child asks a lot (Kurinasih, 2014: 47).

*Third*, exploring, students write the results of discussions with their group friends in the book and collect as much data from observations and from other sources such as student manuals and teachers provide guidance. From the exploration activities conducted by teachers PAI SD Negeri Plumutan running well. That's because the teacher gives direction to groups that have not understood. *Fourth*, associate, in this activity, students are trained to reason with the material learned by being connected with daily life, as well as daily obligatory prayers. From the writer's observation, has the ability to reason about the events that occur in the community and become aware of the right actions or wrong actions according to the teachings of Islam. *Fifth*, communicate, students convey the results of discussion with the group in front of the class. From the author's observation, with the activity of communicating, it will train students in terms of word processing and mental train students.

The inhibiting factor of PAI learning in Plumutan State Elementary School based on scientific approach is that it takes longer time, requires more teaching preparation and student assessment becomes

more complicated. While the supporting factors of PAI learning in SD Negeri Plumutan based on scientific approach are as follows: LCD, video, pictures, stationery, directed classroom conditions, active students and teachers who provide good stimulus to students, active students discuss with other groups and teachers to become a student coach when discussing and appreciating students to other groups will be motivated (Khusna, 2017: 16 March).

The impact of PAI-based learning on scientific approach in SD Negeri Plumutan is that learners are more pleased with PAI subjects because the learning process done by teachers is not boring. Learners can improve their knowledge through a self-directed learning experience or group work. Learners are more active, creative, innovative and productive so as to improve student achievement. This can be seen in an interview with one of the fourth graders who says: "Bu guru in teaching is very fun, how to vary. If one of us does not understand, bu guru explains patiently. For that we understand the lessons explained and we are passionate about the task given bu guru "(Wulan, 2017: 11 April).

To improve the learning achievement of good of course have to fulfill three domains, that is cipta, rasa and karsa. From the results of research at State Elementary School Plumutan partially meet the three domains. The key to obtaining student learning outcomes and measures as described above is to know the outlines of indicators related to the types of achievement to be expressed or measured. After knowing the indicators and obtaining the score of the above achievement evaluation result, the

teacher sets the Minimum Limit Criteria (KBM) of the students. Then the scientific approach in the learning process of PAI in MI Darussalam Bancak includes five (Saekodin, 2017: 3 March).

*First*, observe, the teacher asks the students of class IV B to observe the learning video about the procedure of the shrine. As for the fourth grade teacher A, the teacher plays a video about Wali Songo's story. Based on the authors' observations, from observing class IV A and IV B above, teachers equally facilitate learners to observe, train them to pay attention (see, read and hear). *Secondly*, inquire, in the process of learning questions in class IV B and IV A, the teacher gives the students the opportunity to ask questions about the wudzu and Wali Songo tales. Based on the author's observation, the questioning activities that have been applied by PAI teachers are very useful for fishing and arousing students' curiosity in speaking and processing questions.

*Third*, exploring, learning process of PAI subjects in class IV B, exploring activities undertaken by students is to discuss or collect information from various sources such as group discussion, reading books PAI and some are through the internet. While in class IV A, gather information from various sources such as group discussion and story book Wali Songo. Based on the author's observation, the above exploring activities have not been fully implemented properly, it can be seen when there are some students who are confused with the task given by the teacher, the teacher does not accompany and does not provide direction to the students behind. Exploration activities are intended to provide

students with an understanding of, understand the various materials using a scientific approach, that information can come from anywhere, at any time, regardless of the teacher's in-line information (Hosman, 2014: 34).

*Fourth*, reasoning, students of class IV B in groups discusses from the activities of reasoning by making the learning media according to the creativity of the group that there are those from HVS and some are from the paper cartoons on the procedures of wudoo. While class IV A, the teacher invites students in groups to spread the story of Wali Songo by writing on the HVS paper sheet about the history of the Wali Songo. *Fifth*, communicate, one student represents his group to communicate in front of the class about the results of the conclusions made with the group. Based on the author's observation, communicating activity aims to train students to creativity and develop honest attitude, thoroughness, tolerance and courage to convey ideas.

Factors supporting the implementation of learning PAI in MI Darussalam Bancak based on scientific approach is the availability of manuals, props, learning facilities and professionalism of teachers. The inhibiting factors of learning PAI in MI Darussalam Bancak based on scientific approach is when the lights off, learning media (LCD) is damaged, students with low thinking power will have difficulty following the lesson (Taufiq, 2017: 4 March).

Impact of student achievement after the application of learning by using scientific approach can be seen from the value of attitude, knowledge and skills that have been given PAI teachers. It can be seen from the test

scores, UH, UTS, spiritual values, knowledge value, skill value and the value of the final exam of the semester is very satisfactory. Then students are happy and not bored with the subject matter by using a scientific approach (Saekodin, 2017: March 10). From the author's observation, the learning at MI Darussalam Bancak is supported by the teachers who all have the last education S1 and age pertained young. With these advantages MI Darussalam Bancak has increased the number of students and the increase of student achievement with the average value which also continues to increase. From the author's observation, the application of scientific approach in learning PAI in MI Darussalam Bancak involves process skills such as observing, questioning, exploring, reasoning and communicating. The five phases of learning based on the scientific approach have been partially implemented by PAI teachers in MI Darussalam Bancak, although in its implementation not yet perfect.

#### **Affective learning strategy of pie teacher**

This research is done by writer in the middle of even semester. The focus of this research is affective learning strategy that is done by teacher of PAI class IV. Attitude is gained through the activity of receiving, running, appreciating, living and practicing. All learning activities are oriented towards the competence stages that encourage students to perform these activities (Permendikbud, 2013: 2). The process of affective formation (attitude) is done in two ways, the pattern of habituation and modeling or modeling. The process of affective learning strategy using the pattern of

habituation and modeling, the teacher must explain in advance to the students with an understanding of why it is done (Sanjaya, 2017: 238-239). The implementation of affective learning strategies conducted by teachers PAI in SD Negeri Plumutan are as follows:

*First*, teachers do the pattern of habituation to students. Among them is the habit of reading a short letter before the lesson begins. With that the students are subconsciously memorized by themselves short letters as they are read over and over each day. Furthermore, habituation of dhuhur prayers in congregation, with the prayer dzuhur congregation will train students to have a sense of responsibility that the prayer is obligatory. Then the habit of disposing of garbage in its place because the cleanliness is part of the faith and Islam loves beauty. According to the author's observation, the process of habituation done by the teacher of PAI in Plumutan State Element is good, but it is also necessary to give the reinforcement so that students will try and eager to improve their positive attitude.

*Second*, teachers do attitude formation by way of modeling. The process of imitating here is the process of imitating a child against another person against his or her idol or respected person. The child is given an understanding of why it is done. Master also gave good examples such as the story of the example of the Prophet and the Apostle, walisongo and the pious.

In the implementation of affective learning strategies on student learning activities or student learning outcomes, PAI teachers in SD

Negeri Plumutan pay attention to the psychological aspects of students because psychological students greatly affect the activity and achievement of learning. Students who are smart in their daily life, when they take the exam in conditions that are not prime, then it could get a bad result. In principle, the disclosure of learning outcomes encompasses all the psychological aspects that change as a result of the students' experience and learning process. Nevertheless, the disclosure of changes in the behavior of the whole domain, especially the students' sense domain is very difficult (Shah, 2015: 216).

According to Darajat in his book *Tohirin*, a student can be considered affectively successful in learning religion, if he has enjoyed and realized sincerely the truth of Islamic teachings that he learned, then make it a system of self-worth. Then in turn he makes this value system as the closing of life, whether it be likes or sorrows (Shah, 2015: 216). The supporting factor in SD Negeri Plumutan is strong support from teachers and principals and students for the implementation of affective learning of PAI in schools. While the inhibiting factor is the lack of spirit of the students. Because affective is related to the heart, feelings, attitudes and interests of students. Though it is easy and often changeable. And limitations of student supervision for 24 hours.

The assessment of affective learning strategies by PAI teachers in SD Negeri Plumutan is to evaluate. In implementing affective learning evaluation aims to determine the extent to which the success of teachers in conveying subjects to students or the extent to which students are able to

absorb the subject matter delivered by teachers in a learning process it is necessary to evaluate. As it is known that in the PAI there are three domains that should be evaluated, namely the cognitive, affective and psychomotor domains. For the evaluation of cognitive and psychomotor domains are common and relatively easy to implement and not see many obstacles. In contrast to the affective domain that has been getting less portion in the assessment. While affective valuation is more difficult and many obstacles encountered during the assessment.

In SD Negeri Plumutan the affective evaluation of PAI is implemented through: *First*, written test, in its implementation consists of problem with cognitive domain as much as 50 problem and in affective domain only 10 problem. *Second*, observation of attitudes in following the daily KBM, in its implementation using the guidelines sheet of attitude observation. *third*, observation in the prayer activity dhuhur congregation, assessment of salat dhuhur congregation conducted by religious teachers based on the presence of students attendance in praying dhuhur congregation in the mosque. In the implementation of the dhuhur prayer congregation PAI teachers involve students to be active by assigning them as muadzin in turns. *Fourth*, the daily presence, the liveliness in following the PAI lesson as evidenced by the presumed attendance in the affective judgment. Students who are diligent in taking PAI lessons mean having an interest and interest in PAI lessons. *Fifth*, the accuracy in doing the task given by the teacher of PAI, this shows the existence of discipline and responsibility of student (Khusna, 2017: 24 March).

With the existence of affective learning strategies conducted by teachers PAI SD Negeri Plumutan was able to support the success of student achievement, be it academic achievement or non academic achievement. This can be seen from the achievements produced by SD Negeri Plumutan, namely the increase of UN PAI academic year in 2016 and 2017, student report cards, one sub-district MAPSI championship champion, first winner and three district level and MAPSI provincial race. Next is affective learning strategy at MI Darussalam Bancak. The implementation of affective learning strategies conducted by teachers PAI is with the pattern of habituation and the process of modeling (Taufiq, 2017: 28 March).

*First*, the pattern of habituation. Students are taught to pray dzuha jama'ah in place of worship provided. If done every day, then by itself the students will get used to do duha prayer. place of worship as one to support student affective learning. Its existence is very important to perform prayers and matters relating to activities in support of PAI learning. The use of places of worship in MI Darussalam Bancak as one of the learning resources that students use as a place of learning that leads to affective (attitude) such as praying dzuha. Then students get used to reading religious books in the library. Then students get used to listening to advice or lectures. Dintaranya giving advice from the principal at the ceremony on Monday and bring lecturers as a support in the affective learning process for learners in the commemoration of the big day (Saekodin, 2017: 28 March). It is a thing that leads to affective learning as

an effort to provide guidance and direction to students. Bringing pack of kyai and preachers to fill the commemoration activities of the big day as a supporter in affective learning of PAI (memorial of the Prophet's birthday, pesantren ramadhan, and others). With the aim to increase students' knowledge in understanding the teachings of Islam.

*Second*, the process of imitating. All the residents of MI Darussalam Bancak schools, from principals, teachers, library officers, school guards and friends all make the program with the process of modeling themselves to the students by showing good character. When there is one of the students who diligently do picket, teacher directly exemplify to the students that the friend is doing that can be emulated. So in the process of imitating it, the teacher always exemplifies the things that are around him. Then the teacher conducts a continuous evaluation by conducting an assessment. Assessment of affective learning strategies conducted by PAI teachers in MI Darussalam Bancak through two things: *First*, self-report by students is done by filling the questionnaire. *Second*, systematic observation by teachers to affective students by using the observation sheet.

In the implementation of learning PAI class IV A and IV B in MI Darussalam Bancak always create a fun situation in learning to attract attention for students. In addition, teachers are also trying to improve student achievement. As has been said by the fourth grader B students as follows: "In teaching the teacher is very fun, always giving advice to routine prayers, teaching to do good to friends and encouraging to study more diligently (Nanda, 2017: 3 April)."

Although teachers have done their best to make the learning environment enjoyable, there are some students who still think that the situation created is not fun. From the observations made, the learning of PAI in the first and second hours begins with reading the asmaul husna together. The enforcement of the school by the school makes students to always discipline on time in following the lesson. The supporting factors in MI Darussalam Bancak are adequate infrastructure, strong support from the school community for the implementation of PAI affective learning in schools and support from parents. While the inhibiting factor is the limited face-to-face hours between teachers and students in the classroom. Affective learning requires a long process and needs continuous observation.

According to the authors' observations, for planning, implementation and assessment performed by PAI teacher grade IV A and IV B have been implemented well. It is utilized in an effort to affective learning in an effort to fortify students' morale from the influence of bad things and efforts to improve student achievement. This type of affective learning achievement appears to students in various behaviors such as discipline in following PAI subjects in school, high motivation to know more about the PAI lessons it receives, attention to the lessons, awards or respect for teachers of PAI and others.

With the scientific approach and affective learning strategies conducted by teachers PAI MI Darussalam Bancak was able to support the success of student achievement, be it academic achievement or non-

academic achievement. This can be seen from the achievements of MI Darussalam Bancak, the value of UN PAI ranked in the top three in the district of Bancak, the average value of raport increased, Champion I and III Khotmil Qur'an Putra MI level in the regency of Semarang, Champion I Khotmil Qur ' an Princess MI level in the regency of Semarang, and others. From the author's observation, between the scientific approach and affective learning strategy is very closely related. When a scientific approach is applied in schools, students are asked to think critically and scientifically, but it will not work properly when an affective learning strategy is excluded. So affective learning strategies that will help the process of running scientific approach.

## CONCLUSION

The application of scientific approach in learning PAI in SD Negeri Plumutan and MI Darussalam Bancak Semarang Regency Lesson 2016/2017 covers the process of observing, asking, exploring, associating and communicating. In SD Negeri Plumutan and MI Darussalam Bancak the five processes above have been well implemented by PAI teachers. Implementation of affective learning strategy of PAI teachers in SD Negeri Plumutan and MI Darussalam Bancak District of Semarang Lesson 2016/2017 has been quite good. As for the PAI teachers do include patterns of habituation and the process of imitating.

With the scientific approach and affective learning strategies conducted by teachers PAI SD Negeri Plumutan and MI Darussalam

Bancak was able to support the success of student achievement, be it academic achievement or non academic achievement. This can be seen from the achievements produced by SD Negeri Plumutan, namely the increasing UN value of PAI lessons in 2016 and 2017, student grades, first and third tier of district and MAPSI at provincial level. Achievement of MI Darussalam Bancak, the value of UN PAI entered the top three ranking in Bancak sub-district, the average value of raport increased, Champion I and III Khotmil Qur'an Putra MI level regency Semarang and others.

The suggestions of the author are: *First*, for the next researcher, the researchers should be more thorough again, considering this research still requires development. *Secondly*, to PAI teachers, PAI teachers should always be open and learn with new things related to the development of science, especially about the scientific approach. *Third*, to the parents of students, to foster the spirit of student learning, parents should always be guided students to study their sons and daughters.

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