The Analysis of Implementation of Higher Order Thinking Skills (HOTS) With Problem Based Learning (PBL)

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Abstract. PBL is a learning model that focuses on students or student centers. Learning development oriented to HOTS is a program developed as an effort of the ministry of education and culture through the directorate general teachers and education staff (DG GTK) in an effort to improve the quality of learning and improve quality, especially in the subjects of moral creed. The design of this study uses the type of research that is included in the field research category. Seen qualitatively from data input, process, output. This research was conducted at MTsN 1 Lima Puluh Kota, from March to June 2020. Data collection methods were obtained by in-depth interviews with 5 informants, and focus group discussions with 30 students. While data validation is done by source triangulation and method triangulation. The results showed that the implementation of HOTS with the PBL learning model especially in the subject of aqeedah morals was still not in accordance with the expectations or provisions provided by the central government. In terms of Inputs (Funds, Human Resources, Facilities) available in MTsN 1 Lima Puluh Kota in general already exist and are available but do not meet the needs in the field, in terms of the implementation process is only based on education unit level curriculum and program implementation manuals, the program budget is still minimal. The implementation of these activities is still constrained by means of funds and time so that the expected optimization of activities according to the instructions given by the government has not reached its objectives. Whereas in the output of learning tools are available and the value of students is mostly above the minimal completeness criteria madrasah. Based on the results of the study, it is suggested that MTsN 1 Lima Puluh Kota be able to facilitate madrasah facilities and infrastructure, conduct socialization about learning models to students. As well as continuous improvement of monitoring and evaluation, so that learning targets can be achieved according to needs.

Keywords: Problem Based Learning, Higher Order Thinking Skills, Learning, Akidah Akhlak.

1. Introduction

Education according to the National Education System Law Number 20 Year 2003 is a conscious and planned effort to create an atmosphere of learning and learning process so that students actively develop their potential to have religious spiritual power, self-control, personality, intelligence, noble character and skills that are it needs itself, society, nation and state [1].
According to Azra, the word "education" is brought closer to Islam has been defined differently by various groups, which are heavily influenced by world view. Basically education is a process of preparing young people to run their lives and fulfill their life goals more efficiently and effectively [2].

Success in implementing education or learning can be seen from the learning outcomes achieved by students. The higher the learning achievement, the higher the level of learning success.

Learning is a mental or psychological activity that occurs in interactions with the environment that results in changes in change, knowledge, understanding, skills and attitude values [3]. So that students understanding of what they have learned will be better. This relates to the assessment of learning outcomes.

The learning carried out is an interaction between the teacher and students who have their respective roles. The role of the teacher is to teach students to form intelligent, skilled, and virtuous humans. While the role of students is to actively participate in learning activities so that subject matter can be understood properly. Therefore the teacher must be able to choose the right strategy to help students learn.

PBL is a learning model that focuses on students or student centers. PBL model is closely related to problems that occur in real life and is learning that emphasizes the activity of inquiry in solving these problems.

Currently educators need to develop humanist education in facing global challenges, so as to realize students who have behavior in accordance with the principles of humanist education to build the character of the nation to face global challenges, among others (a) the belief in one god, (b) humanity, (c) gentleness and compassion, (d) be loving, (e) democracy, freedom and autonomy, (f) human relationship [4].

Development of learning oriented to HOTS is a program developed as an effort of the Ministry of Education and Culture through the Directorate General of Teachers and Education Personnel (DG GTK) in an effort to improve the quality of learning and improve the quality of graduates.

So to improve the quality of education in Indonesia the government in several policies has required the implementation of HOTS learning as in Minister of Education and Culture Regulations Number 22 of 2016 [5].

Every component of the learning process, both planning, learning and evaluation are mutually integrated, learning based on HOTS must include planning for learning based on HOTS, learning based on HOTS and evaluations based on HOTS.

Assessment of learning outcomes is expected to assist students in improving HOTS, because higher level thinking can encourage students to think broadly and deeply about subject matter [6]. A learning concept will be more easily understood and remembered by students if the concept is presented through an appropriate, clear and interesting learning process.

Currently teachers are more likely to dominate the learning process even though the learning provided is oriented towards problem solving, so students are less actively involved in the learning process. This can be seen from the lack of multi-directional interaction between the teacher and students, as well as between fellow students. Students are more likely to wait or receive information from the teacher and the lack of student initiative to actively seek information related to problem solving both individually and in groups.

PBL can actively involve students and think critically both in groups and individually. PBL based on high level thinking skills requires students to learn in solving problems presented by the teacher so that students are expected to be active to the optimal learning experience. With learning at the taxonomic level, Bloom reflects high-level thinking skills in the form of analysing, evaluating, and creating.

PBL which has not been implemented properly causes student boredom which can be seen from the lack of students attention to the teacher lessons. The concentration of students is easily dispersed because the methods used are not appropriate, there are still many students who have not been challenged in answering problem solving, many students are sleepy during class hours, do other activities such as telling stories with their peers or fussing when the teacher presents learning material.
The average has problems related to Negative Expectation indicators such as problems in remembering information after reading. Secondly, problems related to processing information. Third, some students have problems with topics and genres, limited vocabulary knowledge, lack of familiarity with subject matter, level of difficulty of text (readability), weak verbal reasoning. And finally, most students lack fluency, use of the language level, and inadequate use of effective reading strategies [7].

In the use of instructional media, teachers still do not use media that is suitable to support the PBL. The use of strategies and methods that are less oriented towards student activities and the development of students critical thinking in problem solving are thought to affect the acquisition of low student learning outcomes related to assessments that have been based on HOTS.

This situation is increasingly felt when the subjects of morality are in the last rank of the subjects of the day, at the last hour before and after the break of zuhr prayer or subjects of morality are after sports subjects that make students less concentrated. After the material has been submitted, the teacher asks students if they already understand the material presented, some of them answer that they have understood that some are just silent as if they already understand and understand the material presented, but when the daily tests are examined the results are very disappointing.

The conventional method used by the teacher as the easiest method used in the delivery of material, therefore teachers use a variety of learning methods but are still influenced by conventional methods. Learning using learning methods that have not been done well causes students not yet able to develop spiritual, social, knowledge and skills. In addition, teachers, as providers of information, tend to dominate classroom learning activities so that there is no reciprocal relationship between teachers and students which has implications for the quality of learning in the learning process.

2. Methodology

This type of research used in this study includes the field research category (field research) using the system analysis method of data input (Policy, Human Resourcer, Funds, Facilities and Infrastructure), process (Implementation of activities, Increasing Participation of Students, Roles and related institutions, Monitoring and Evaluation), outputs (Completeness of Learning Tools, Learning Evaluation results). This research was conducted at MTsN 1 Lima Puluh Kota precisely on Jalan Raya Padang Japang, Kenagarian VII Koto Talago, Guguak District, Lima Puluh Kota Regency, City of West Sumatra Province.

Data collection methods were in-depth interviews with 5 informants and focus group discussions on 30 students. Data analysis was performed by source triangulation and method triangulation.

In qualitative research, the research instrument is the researcher himself, then added to the interview guide that has been prepared in writing in accordance with the problem, then used as a means to obtain information which will then become primary data. Another instrument is an observation sheet that is used to help researchers obtain secondary data from documents available at MTsN 1 Lima Puluh Kota.

Data collection techniques were carried out in 3 ways, namely in-depth interviews, focus group discussions, and document review. The data obtained, validated by triangulation. Furthermore, the data is processed through several stages: data transcripts, data reduction, data display, drawing conclusions and verification.

3. Result and Discussion

From the document review, it was found that MTsN 1 Lima Puluh Kota has guidelines for implementing HOTS with PBL learning models on Akidah Akhlak subjects in MTsN 1 Lima Puluh Kota, guidelines for the implementation of the HOTS system, guidelines for organizing and a guide for teachers, a guide for trainers in HOTS training systems, Training Modules.

From the results of in depth interviews and document review results, it is known that all operational budgets of MTsN 1 Lima Puluh Kota come from DIPA MTsN 1 Lima Puluh Kota, the budget for implementing HOTS with PBL learning models in Akidah Akhlak subjects The proposal was
merged with the teaching and learning process madrasah program, this budgeting was made as a reference in planning a learning process.

The total in the 2020 madrasah operational budget only comes from DIPA but the details of the implementation are not stated only for spending on goods and services, after confirmation with the Head of Madrasah, Waka Curriculum and Subject Teachers MTsN 1 Lima Puluh Kota only allocated according to need without there is a clear percentage for planned activities because this budget is shared for various activities.

When looking at the importance of HOTS based learning, it is necessary to include a plan for implementing HOTS with the PBL learning model on Akidah Akhlak subjects in MTsN 1 Lima Puluh Kota and include a special budget in the Madrasah Operational Budget, so that learning activities can be carried out well. Therefore, it is expected that with the allocation of a special funding budget for the implementation of the PBL of learning model, the strategy in preparing the learning implementation activities can be carried out maximally. Training costs for implementing HOTS with the PBL of learning model are all sourced from government and local government budgets and some of them can be combined with other activities where funding is sourced from the community or across sectors in planning one of which makes cost planning.

One solution to overcome this is the manager who has formed a team, making activity planning (POA) based on the number of targets available so that the frequency of activities is better than the previous one and the target becomes wider.

Human resources or Akidah Akhlak teachers who teach with PBL learning model, namely as many as 2 people with a background in Islamic Education S1, with available classes of 48 classes with 2 teachers, it can be seen that the workload in each teacher has a very large, 24 groups

Facilities and infrastructure as well as supporting facilities will help the implementation of learning so that the learning process can run well and students can capture all the material delivered by the teacher. Especially aqidah akhlaq subject teachers have not used complete facilities to carry out PBL activities because the number of facilities in MTsN 1 Lima Puluh Kota is still Limited, while the infrastructure owned by MTsN 1 Lima Puluh Kota has been fulfilled and is based on criteria which exists. According to researchers to complete these facilities there must be funding to support and assistance from relevant institutions, and the need for monitoring from the planning of the ministry of religion and local government for the implementation of the teaching and learning process.

The activities of implementing HOTS with PBL of learning models must use complete facilities and infrastructure so as to increase the enthusiasm of the students to take part in the activities carried out for example by viewing pictures or videos so that the higher the student's height in participating teaching and learning process activities.

The implementation of teaching and learning process from the results of interviews with Akidah Akhlak teachers in MTsN 1 Lima Puluh Kota there are still some material that has not been implemented in the process of implementing HOTS with the PBL of learning model in accordance with the education unit level curriculum that has been determined namely one of them is the use of instructional media, besides that with the many available classes and limited learning time, the implementation of the PBL of learning process cannot be optimally implemented.

The implementation of the PBL model in the subjects of morality has been carried out well, but there are several obstacles encountered during implementation such as the limited number of hours of learning, because learning with a system of HOTS requires a longer time in the process.

In the process of implementing PBL especially in the subject of Akidah Akhlak is still individual and only one or two students who play an active role, besides that there are still many students who do not understand about the implementation of this learning.

The purpose of increasing students understanding in implementing PBL is to increase the role and independence, as well as the ability of students to analyze thinking and receiving knowledge and skills conveyed by the subject teacher.

Based on the description above, it can be concluded that the participation of students in general has not run effectively, especially in terms of acceptance of the material and active role in the learning
process with subject teachers in implementing PBL of learning. The absence of an active role of students is indicated by the absence of an active role of students in the class.

In the Akidah Akhlak Subject in MTsN 1 Lima Puluh Kota according to the interview conducted to this informant is still experiencing problems due to lack of advocacy and socialization to all parties involved. MTsN 1 Lima Puluh Kota is part of the ministry of religion of Lima Puluh Kota district. The learning process in MTsN 1 Lima Puluh Kota is overseen by the ministry of religion which acts as the supervisor of the education process as the results of the interview.

Supervision only rate the sustainability of the activities of the implementation of HOTS with the PBL learning model in Akidah Akhlak subjects in MTsN 1 Lima Puluh Kota against teachers who have participated in training, but have not yet assessed the performance of the teacher or the evaluation of this learning.

Ineffective supervision function causes the development and modification of learning cannot be done to meet the needs of students who continue to develop, especially the problem of implementing HOTS with PBL learning model in Akidah Akhlak Subjects in MTsN 1 Lima Puluh Kota. Lack of students understanding of this learning model can be part of planning and priorities to socialize and educate students in the implementation of HOTS with PBL of learning model in Akidah Akhlak subjects at MTsN 1 Lima Puluh Kota in the form of socialization can be done by making banners, notifying during the flag ceremony, analyzing student characteristics, motivating students.

Grouping and socialization, then each teacher can analyze the problem in the implementation of HOTS with PBL learning model on the Akidah Akhlak subjects and have complete data about students problems in the implementation of HOTS with PBL of learning model in Akidah Akhlak subjects in MTsN 1 Lima Puluh Kota, the data will be the source of data in determining the next learning process implementation policy.

In the matter of the contents of administrative completeness, the whole process of implementing PBL based on HOTS is not yet visible, especially in the subject of Akidah Akhlak which is seen, in the future it is expected for teachers who use the implementation of HOTS with PBL Learning Model in Akidah Akhlak Subjects in MTsN 1 Lima Puluh Kota in order to make adjustments and development of material using these methods so that students will get more leverage in understanding the material presented.

From the evaluation results that most students have a value above the minimal completeness criteria so indirectly the learning process with this method is very helpful for students in optimizing student abilities in accordance with the toeri which states that PBL is an innovation in learning because in teaching and learning process the ability to think students are truly optimized through systematic group or team work processes, so students can empower, hone, test, and develop their thinking skills on an ongoing basis.

Based on the research above, it can be concluded that the implementation of HOTS with PBL learning model in Akidah Akhlak subjects at MTsN 1 Lima Puluh Kota has begun to show results that need to be done by the madrasah is to continue to develop and improve the participation of students in the teaching and learning process so that in the end the aims and objectives of implementing the HOTS with the PBL learning model in Akidah Akhlak subjects at MTsN 1 Lima Puluh Kota can be achieved.

4. Conclusion

The implementation of HOTS with the PBL learning model in Akidah Akhlak subjects at MTsN 1 Lima Puluh Kota has not been fully implemented either from the input, the process so that the output achieved has not yet reached optimal results. Some conclusions can be drawn as follows:

1. Component Input

There is no specific formulation / specific explanation in education unit level curriculum MTsN 1 Lima Puluh Kota on the implementation of HOTS with PBL learning model but only based on the implementation of learning guidelines based on higher order thinking skills that are derived from the Ministry of Education and Culture. Human resources (teachers) especially the subject of Akidah Akhlak in MTsN 1 Lima Puluh Kota are currently available but the skills in implementing HOTS with PBL still
need to be increased. Learning only comes from DIPA but there is no specific allocation, while the facilities and infrastructure in MTsN 1 Lima Puluh Kota are still very minimal, the supply of films, LCD, Infocus is not sufficient for the entire Learning process.

2. Process Components
The implementation of learning activities, the participation of students and the role of related agencies in the implementation of HOTS with PBL learning model in Akidah Akhlak subjects at MTsN 1 Lima Puluh Kota have been implemented but not so optimal, while for monitoring and evaluation has been carried out, by supervising the madrasah head. Evaluation of activities is carried out but evaluation of the sustainability of the program is still lacking in attention.

3. Component Output
Learning Tools (Syllabus, lesson plan, semester program, questions) Akidah Akhlak subjects are fully available in MTsN 1 Lima Puluh Kota, the results of evaluating the learning of aqidah subjects are mostly average values of students above the minimal completeness criteria set by Madrasah.

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