

Problem Based Learning in Islamic Religious Education: The Case of the Indonesian *Pesantren*

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Abstract

Many researchers have applied PBL (Problem Based Learning) in various educational institutions and various scientific fields. However, not many of them use PBL in the field of religious education. This study attempts to describe the PBL model that has been applied in Indonesian *pesantrens* in Islamic religious education. *Pesantrens* are traditional Indonesian Islamic religious education institutions that emphasize Islamic religious education and character development. Three things are the focus of this research: the objectives of PBL in *pesantrens*, the design of PBL problems in *pesantrens*, and the PBL phase in *pesantrens*. This research was conducted using the case study method on one of the largest *pesantren* in Indonesia, the *al-Anwar Pesantren*, located in Karangmangu, Sarang, Rembang, Indonesia. Research results show that PBL in *pesantrens* had been implemented in the form of *bahth al-masa'il* (lit. problem discourse). Viewed from the aspect of purpose, *pesantrens'* PBL places more emphasis on deepening the understanding of classical Islamic texts, while in the problem design, problems of PBL are not being designed by teachers, but are proposed and chosen instead by the students themselves. Meanwhile, in the phase aspect, *pesantrens'* PBL gives more autonomy and responsibility to students to carry out the learning process independently.

Keywords: PBL; *Pesantren*; *Bahth al-Masa'il*;

Introduction

In the discussion of the development of Islam in Indonesia, we cannot ignore the role and contribution of *pesantren*. Since establishment around 16th century AD, *pesantren* have played an important role as a center for the spread of Islam in the archipelago. The *pesantren* is the oldest Islamic educational institution in which the systematic learning of Islam was carried out for the first time in Indonesia (Amri et al., 2017; Izfanna & Hisyam, 2012). The *pesantren*, with its unique system, grows and develops together with the culture and traditions of the Indonesian people. *Pesantren* also emerged as a solution to the problems of education of the Indonesian people during the colonial period. Even, in its development, *pesantren* is not only an educational institution but also a social and cultural institution. So do not be surprised if the *pesantren* education system is called indigenous or local Indonesian genius (Ma'arif, 2018).

The term *pesantren*, or now also known as an Islamic boarding school, comes from the word "santri" which means student. The word *pesantren* can be interpreted as a place to study for *santri* or students. The term *santri* is allegedly rooted in the tradition of the *cantrik* or followers of the sages in Hindu-Buddhism (Amri et al., 2017). The *pesantren* has a historical relationship with pre-Islamic educational institutions because institutions like

pesantren are known to have existed since the Hindu-Buddhist era. When Islam came, this institution was not discarded, but continued and converted. Thus, *pesantren* is not only synonymous with Islam, but also synonymous with Indonesianness (Asrohah, 2011).

Throughout history, *pesantrens* have played an important role in Islamic education in Indonesia since its existence in the 16th Century (Nilan, 2009). There are at least three essential roles of *pesantrens* for Muslims: as centers of transmission of religious knowledge; as guardians of Islamic traditions; as centers of regeneration of Muslim scholars ('*Ulama*'). *Pesantren*, and similar institutions in other parts of Southeast Asia, such as *pondok* or *surau*, become centers of religious activity in rural areas that tend to be traditional and conservative. However, despite these traditional characteristics, *pesantren* as an education center has now developed into a central component of the modernization of education in Indonesia (Pribadi, 2013).

As a traditional Islamic educational institution, *pesantren* has the characteristics and uniqueness that distinguishes it from modern educational institutions that were born later, such as Islamic schools or madrassas (Zuhdi, 2006). There are at least five elements as a milestone in the *pesantren* education system, namely 1) Muslim scholars as teachers, caregivers, and central figures commonly called "*Kiai*", 2) mosques as places of learning, 3) curriculum based on classical Islamic texts widely referred to as the *Kitab Kuning* (yellow book), and 4) the residence of the students, 5) students or commonly called "*santri*" (Pribadi, 2013; Srimulyani, 2007). Another characteristic of *pesantren* lies in its learning system, which emphasizes oral transmission of knowledge, even for written texts. In the traditional academic style, which is still

maintained in many *pesantren*, the *santri* learn specific books with certain teachers, and after completing these texts can switch to other teachers, at other *pesantren*, to learn other texts. After finishing studying a text, students will get a *sanad* or link that connects it to the author of the text (Bruinessen, 2008).

In the Indonesian *pesantren* learning system, the terms known as *bandongan* and *sorogan* are methods of studying Islamic teachings through classical Arabic books or commonly known as the "*Kitab Kuning*" (yellow book). *Bandongan* is a learning model through the teacher reading the text of the yellow book, translating word for word, and explaining its meaning, while students note the meaning on the body of the copy of the text they carry (Nurtawab, 2019). In contrast, *sorogan* is the opposite of *bandongan*. Students read classic texts speak Arabic, translate word for word, and explain its meaning, while the teacher listens and evaluates it (R. A. Lukens-Bull, 2001). No wonder, many people always consider that *pesantren* is ancient and difficult to keep up with the times (Gazali & Malik, 2009).

However, the assumption was not entirely correct. The development of *pesantren* time by time shows the role of this institution is still quite significant in the modern era. Formerly, *pesantren* became the center of resistance to colonialism, and now *pesantren* still function as a place for young people to shape morals and life skills (R. Lukens-Bull, 2010). Alignment of tradition and modernity in the life of *pesantren* is indeed necessary. In this case, *pesantren* need to make several changes, especially those relating to teaching practices. However, it should be noted; reforms should not be done haphazardly because some traditional learning practices are still very relevant to the concept of modern learning (Asrohah, 2011).

One of the *pesantren* learning practices that is relevant to the spirit of modern education is the learning of Islam with a problem as a center of learning. In the *pesantren* tradition, this practice of learning is commonly called *bahth al-masa'il*, which means literally, discussion of problems. The tradition of *bahth al-masa'il* is a tradition that applies among the members of Nahdlatul Ulama (NU) - the largest Islamic organization in Indonesia which is often referred to as the representation of traditional Islam (Brown, 2019; Burhani, 2012)- to discuss any factual religion problem as well as the idea to solve the problem. In this forum, the scholars and 'ulama gathered to exchange idea, rule, and reference to find out the solution for any religious problem questioned by people (Pelu, 2016). The tradition of discussing these problems also runs in the Indonesian *pesantren* in the study of religious sciences. The aim is to train students to think critically and systematically and equip them with the ability to solve problems using healthy arguments and thinking patterns. The experts believe that learning through problems is seen to be able to improve thinking skills and problem-solving skills that are very much needed in living life in the real world, especially to deal with the industrial revolution 4.0 (Anazifa & Djukri, 2017; Nagarajan & Overton, 2019; Si et al., 2019; Ulger, 2018).

Besides, learning with problems will also provide skills in interacting and collaborating dynamically with others. This is because problem-based learning presents factual problems and situations into the classroom for students to solve by working with each other. These skills are not only needed in certain subjects, but in all fields of study, and most importantly in the real world (Dole et al., 2017; Valdez & Bungihan, 2019). In other words, *problem-based learning* (PBL) is also important to be applied in the study of religious

sciences to improve thinking skills and solve religious problems. In this context, in substance, Indonesian *pesantren* has implemented PBL in religious education which is manifested in the tradition of *bahth al-masa'il* (problem discussion).

It is just that research on *pesantren*-style PBL as a specific education in Indonesian *pesantren* or Islamic boarding schools is still not much done. Research on the application of PBL, even the most recent ones, is mostly done in the fields of health education (Stentoft, 2019), mathematics (Dahl, 2018), technology (Chan & Blikstein, 2018), computers (Lin, 2018), and social studies (Eglitis et al., 2016). We have not found much research on PBL in the realm of religious education, especially not taking *locus* in Indonesian *pesantren*. We found only a few writings on PBL relating to religious education; namely, Krakowski (2017) writing on PBL and Christian theological education and Worsley (2005) writing on PBL and Jewish theological education.

Therefore, we are interested in elaborating the tradition of *bahth al-masail* as a form of implementing PBL typical of Indonesian *pesantren*. The *bahth al-masa'il* is a learning activity that makes religious problems as a starting point and emphasizes problem solving in the learning process. This study aims to find out and analyze PBL models typical of Indonesian *pesantren*-henceforth we call them PBL with *pesantren*.

This study will focus on the implementation of PBL in Indonesian *pesantren* through activities to discuss the problems and peculiarities of PBL in Indonesian *pesantren*. The results of this study will contribute in the form of alternative PBL models that can be applied in Islamic studies. For this reason, this study will be directed to answer the following questions: 1) What are the objectives of implementing PBL in

Indonesian *pesantren*?; 2) What is the design of problems in PBL in Indonesian *pesantren*?; 3) What are the phases for PBL in Indonesian *pesantren*?; and 4) What are the characteristics of PBL in Indonesian *pesantren*?

Methodology

This research is a descriptive case study (Yin, 2002) to explore the portrait of PBL and significant things about it (Bassey, 1999) in one of Indonesia's *pesantren*, namely Pondok *Pesantren* Al-Anwar. Pondok *Pesantren* Al-Anwar is a traditional Islamic boarding school, which at the beginning only had religious education and character development. Despite its development, the *pesantren* established by KH. Maimoen Zubair, a major figure in the Nahdlatul Ulama (NU) also established a modern educational institution (formal madrasa), but he still adheres to the traditional *pesantren* character, as characterized by R. A. Lukens-Bull (2001) with religious education, character development, and tends to limit innovation on traditional learning systems. This *pesantren* is located at the north coast of the island of Java, precisely in Karangmangu village, Sarang sub-district, Rembang district, Central Java Province of Indonesia. This *pesantren* is one of the oldest and largest *pesantren*, which is the destination of Indonesian Muslims to study Islamic sciences with a traditional approach.

We retrieved the data on the implementation of PBL in the *pesantren* by observing the techniques in *pesantren* religious schools at the top level, namely grades IV, V, and VI. We made using the technique of *participant observation* by following activities of *bahth al-masa'il* as one of the participants. We used this technique to observe directly the implementation PBL in detail so as to find its characteristics (Woodside, 2010). We

also conducted interviews with instructors, commonly called *ustadz*, subject leaders and chair of the teaching board at the level with one-on-one interview (Creswell, 2012). We also conducted interviews with representatives of students (students) in each class with focus group interviews (Creswell, 2014). We conducted interviews to find out the design of problem and purpose of the *bahth al-masa'il* as well as crosschecking the data from observations. In addition to these two techniques, data is taken from *pesantren* documents about the curriculum, teaching materials, student data, instructor data, and so on.

The data analysis in case studies is usually rarely defined explicitly because case studies are not rigid (Yin, 2002). Therefore, we conducted the analysis since data collection, so while in the field, we have begun to carry out a data analysis process until the research ends. Our analysis was carried out interactively and continuously until it was complete so that the data becomes saturated.

Results

Implementaton of PBL in *Pesantren*

Although terminologically, the *pesantren* milieu do not know what PBL is, but practically they have applied this learning model. In the Indonesian *pesantren* tradition, PBL can be seen in the form of *bahth al-masa'il*. *Pesantren* people sometimes also refer to *bahth al-masa'il* (problem discussion) in terms of *mushawarah* (exchanging opinions), *mudzakarah* (discussion), or *munadharah* (exchanging ideas). *Bahth al-masa'il*, with all the names is one of the many classic learning systems in the style of Indonesian *pesantren* that is unique and distinctive. *Bahth al-masa'il* in several Indonesian *pesantren* is a routine activity that is carried out classically according to the

level of education of students in *madrasa diniyah* (religious schools) *pesantren*. *Madrasa diniyah* is a non-formal religious school integrated with *pesantren*. Learning at this school is usually done in the afternoon, because in the morning the students study in formal schools, while at night students must take part in other learning activities such as *bandongan*, *sorogan*, or *bahth al-masail*.

In general, activities to discuss problems are carried out outside the school hours of religious schools. In other languages, *bahth al-masa'il* is not part of the religious school intracurricular activities that are carried out during class hours in the classroom. However, *bahth al-masa'il* is more similar to co-curricular activities which are supportive of learning in school. This practice only exists in Indonesian *pesantren* and cannot be found in modern schools.

At *Pesantren Al-Anwar Sarang Rembang* Indonesia, in which we conducted this research, the *bahth al-masa'il* can be said to be one of the leading activities. This is because the *bahth al-masa'il* activities get the most time portion compared to other activities. In this *pesantren*, this activity is carried out every day after the evening prayer in congregation, except for Friday. Friday, which is a holy day for Muslims became a *pesantren* holiday to replace the holiday on Sunday. On Friday, usually, all *pesantren* learning activities are closed and replaced with other activities, such as *yasinan* (reading surah Yasin together), *Tahlilan* (reading dhikir and prayer for a common soul), *Berjanjengan* (reading life history books of Prophet Muhammad together), or cleaning together.

The *bahth al-masa'il* are usually divided into classes according to the level of education of students in *pesantren* schools. The material discussed is religious materials that are studied in religious

schools, including *Fiqh*, *Aqidah*, *Tafsir*, *Hadith*, *Akhlaq* (morality), *Nahwu-Sharf* (Arabic grammar). Books by classical Muslim scholars become the source and reference of student in every learning activity. Some basic books are even required to be memorized and their memorization becomes a determinant of class promotion. Among the books include *jauharah al-tauhid*, *kifayat al-'awam*, & *umm al-barahin* (*Aqidah*), *fath al-qarib*, *fath al-mu'in*, *minhaj al-Thalibin* (*Fiqh*), *ihya' ulum al-din* and *syarh al-hikam* (*akhlaq*), *Mutammimah*, *alfiyyah ibn Malik*, *syarh ibn aqiel* (*Nahwu-Sharf*), *tafsir al-jalalain* (*Tafsir*), *bulugh al-maram* & *al-tajrid al-sharih* (*Hadith*). In the *bahth al-masa'il*, these classic books also become one of the sources, and even become the main source in finding propositions and religious explanations related to the problem being solved.

The Purpose of *Pesantren's* PBL

As a traditional institution, *pesantren* in Indonesia have the aim of educating students to be able to master the religious sciences both theoretically and practically broadly and deeply. To realize this goal, *pesantren* organize classical literature-based religious education, one of which is by *bahth al-masa'il*.

The head of *pesantren Al-Anwar* teaching board said, learning with *bahth al-masa'il* at this *pesantren* generally aims to provide students with the ability to solve religious problems. Through the problem-solving process, students will be actively involved in the search for information and propositions in various sources, both individually and in groups, to deepen and broaden their understanding of the material contained in classic books. Besides that, by solving problems, students will also practice to think logically, analytically, and systematically. He said:

“Bahth al-masa’il is indeed carried out every day to support the learning of the yellow book in pesantren. By solving the problem, students not only explore the material contained in the yellow book but also practice logical and analytical thinking.”

Thus, there are at least three main abilities to be achieved in *pesantren’s* PBL, namely the deepening of the material in the classical books (the yellow book), the improvement of problem-solving abilities, and the ability to think.

Problem Design in Pesantren’s PBL

Based on observational and documentation data, the average problem raised in the *bahth al-masa’il* is factual religious issues that are still new and warm. Some of the students we interviewed gave samples of problems such as worship during the Covid-19 pandemic, the funeral of Covid-19 victims, meat from animal cells, transactions with *cryptocurrency*, and so on. These problems, according to students, are quite complex problems in religious studies because besides, there is no definite explanation in religious texts, the problem also requires study in other disciplines. For Covid-19 issues, for example, students must understand the ins and outs of the health-first impact of Covid-19. Another example, about meat from animal cells, students must explore information related to the process of making meat, as well as the positive and negative sides. Then they look for references which are appropriate in religious texts.

Some of the teachers we interviewed said that the problems that could be discussed in the *bahth al-masa’il* process had to meet several criteria. One teacher said:

“The problem that we discussed in the bahth al-masa’il process was waqi’iyah problems or current problems that did occur in real life and had never been discussed before.”

Another teacher said:

“What is clear, the problem must be in accordance with the material being studied must not come out of the theme. The problem is also not a simple problem, which can be answered spontaneously, but a complex problem that requires an in-depth analysis of various aspects.”

Thus, the design of problems in Pesantren’s PBL must meet at least the following criteria:

- Problems according to curriculum and subject matter
- *Mas’alah waqi’iyah* or problems in the real world are complex and require deep resolution.
- Problems contain novelty or have never been solved before.

Unlike the design of PBL problems in general, problems that are solved in the discussion activities are not selected or determined by the teacher but proposed or proposed by students. All students have the same opportunity to raise a problem, but not all problems will be discussed. With the guidance of the teacher, the problems raised by some students will be selected first and then agreed upon by students, which are appropriate and not feasible. Problems that are feasible will be solved together, while those that are considered unfit are left behind. For students who submit a problem agreed by the forum, he is responsible for describing a detailed description of the problem that occurs in the real world. He is also responsible for answering questions from other students so that misunderstandings occur between students.

Phases of Pesantren’s PBL

Indonesian *pesantren* has a tradition of loving and respecting teachers and *Kiai* both living and dead. For *pesantren*

people, loving and respecting teachers is part of the requirements for getting useful knowledge (Bruinessen, 2008; C. Tan, 2011). One form of respect is seen in the habit of students preparing learning independently so as not to burden the teacher. Students develop their self-learning resources and facilities, provide books, arrange tables, prepare whiteboards, and so on so that when the teacher comes, learning is ready to begin. Students always come to class first and wait for the arrival of the teacher; it is not the teacher who waits for the students.

This tradition applies in all learning activities in *pesantren*, including the *bahth al-masa'il*. In this activity, students are given responsibilities and roles large enough to organize their learning activities. Students arrange the schedule of activities, prepare resources and facilities, guide actions, raise problems, find and analyze data, and evaluate themselves. While the teacher only serves as a facilitator, motivator, and guide students in conducting learning activities. In each meeting, there are at least three tasks that must be carried out by students in turn at each meeting, namely as a moderator, presenter or commonly called a *Qari'*, and notepad. The moderator is in charge of guiding the course of activities, managing time, and guiding the discussion. At the same time, the presenter was in charge of presenting the themes discussed at the meeting. At the same time, the notepad is tasked with writing every question, opinion, or suggestion that comes in.

The *bahth al-masa'il* process is usually started by the teacher by reading prayers and doing apperception by giving introductory material and explaining learning tasks that students must do during the learning process. The teacher then submits the forum to the moderator to lead the course of the *bahth al-masa'il* process. The next step, the moderator invites the

presenter to deliver the subject matter in the order of the themes in the handbook. The way to convey it is by reading the text in the book, translating text words in the Javanese language according to the Arabic grammar, and explaining the contents of the text.

Subsequently, the moderator provides the opportunity for students to raise issues that will be discussed at the forum. The problems raised are religious issues related to learning material. However, not all issues raised will be discussed in the forum. Only one problem will be examined, namely, the problem chosen and agreed upon together. In this case, the teacher directs students to choose problems that are factual (*waqi'iyah*), important, and not yet known by students. One student said:

"The problem being solved comes from the student's proposal. Students raise several problems then they choose and agree on the one problem that is most feasible. The teacher does not intervene in determining the problem, only provides direction and guidance in order to agree on an appropriate problem."

If the problem has been determined, the next step is the formation of a study group coordinated by the moderator. There are no definite criteria in this grouping. Students are given the freedom to form their own groups. But based on observations, students tend to join groups from the same room or dormitory.

After the learning group is formed, students have time to understand the problem posed. This process is commonly referred to as *tashawwur al-mas'alah* or defining the problem. At this stage, students discuss and exchange ideas, both in groups and between groups, to analyze problems - including discussing terms and concepts related to the problem. Students who propose problems and are approved by the forum are responsible for

explaining the details of the problem and providing clarification if there are questions from other students in the process of defining the problem. After the problem is considered clear, then the students jointly agree and determine the formulation of the problem that later will be sought for a solution.

If the stage is considered sufficient, students conduct data collection, information, or propositions in groups. To that end, they must explore various sources from several scientific disciplines at the same time in accordance with the issues discussed- religious, social, economic, health and others. The religious perspective is of course, the main weapon because what is sought is a religious solution, but other perspectives must also be used for consideration in determining problem-solving. This process takes a long time because students are required to investigate one argument after another - they also call it *ta'bir* or is *like* the meaning of the Qur'an, the Hadith, and classical religious literature in a thorough and in-depth manner. Students also conduct analysis and synthesis of these religious texts and relate them to various information and data from other disciplines to determine solutions to problems.

The next phase is the time for each group to present their work. In turn, the group representatives conveyed the solution that had been formulated accompanied by an argument or (referral) '*like* from religious sources. In this phase, students get the opportunity to discuss with each other alternative solutions offered by each group. For groups who do not agree with offers of solutions from other groups, they can refute it. Of course, that refutation must be accompanied by a strong argument, data and arguments. This is where the *bahth al-masa'il* forum becomes a dynamic arena of exchange of opinions

and scientific dialectics. The students call this phase the term *al-radd wa al-i'tiradl* which means response and refutation. So-called, because in this phase, the students discuss with each other, argue, and collide with the argument, data, and arguments to maintain the solution offered. When the discussion or debate does not find a meeting point, the teacher provides guidance and direction so as not to drag on. One of several students interviewed with a technique *focus group interviews* said:

"The al-radd wa al-i'tiradl stage is the most awaited stage for students, because here they can discuss and exchange opinions about the religious solutions they offer. Each group will definitely defend their opinions so that debates often occur between groups who are pros and cons."

After going through the discussion between the groups, the students together formulate a solution accompanied by propositions, data, and supporting arguments. However, if at that time, the discussion is deadlocked and a solution is not yet determined, the *bahth al-masa'il* is suspended and continues the next day. Problems that have not yet been found a solution or are deferred to discussion in the language of the *pesantren* are called *mas'alah mauqufah* (deferred problems). After all the processes have been carried out, the last phase is evaluation and reflection. At this stage, the teacher invites students to review and evaluate student learning activities in the problem-solving process from defining the problem to formulating a solution.

If summarized in a simple scheme, PBL practiced by *pesantren* has several phases, including 1) submission and determination of issues to be discussed, 2) defining the problem, 3) investigation and analysis of data in groups 4) presentation of findings and dialogue between groups, 5)

formulating solutions, 6) evaluation and reflection.

Discussion

This study found that Pesantren's PBL had three main objectives; namely, mastery of the material, increased thinking ability, and the ability to solve problems in religious problems. Substantially, the objectives in *pesantren* PBL are not much different from the PBL goals formulated by Hmelo-Silver & Barrows (2006), Tan (2005), and Arends (2015). Both Pesantren's PBL and other PBL have a common goal in terms of improving thinking skills and problem-solving. This means that these two abilities are very important in all scientific disciplines, not least in the Islamic religious sciences.

The ability to solve problems is very much needed in religious disciplines, bearing in mind the changing times have led to new problems in religious life. These problems are sometimes quite complicated from the religious point of view so that they need appropriate solutions so as not to burden the people. Likewise, the ability to think is one of the important elements in practicing Islam. In Islam, reason ('*aql*') is one source of teachings and sciences in Islam after the Qur'an and *Hadith* (Walbridge, 2011). Al-Qur'an, as the Muslim holy book, even mentions the word '*aql*' 49 times and the command to use reason 300 times. This is proof that Islam places the human mind in a high position (Akrami, 2017). Even so, in playing its role, the reason must not be separated free from the text, but must still be guided by the Qur'an and the *Hadith*.

What is very different from the purpose of Pesantren's PBL is probably the ability to deepen classical books. In the *pesantren* tradition, the yellow book is a handbook, a source of learning, even a source of values and traditions of *pesantren*. All religious studies in *pesantren* are from and for the

yellow book. Even the traditions and values of life in *pesantren* are mostly derived from the teachings in these books (Bruinessen, 1994, 2008). So it is not strange if Pesantren's PBL, besides directed to the ability to think and solve problems, is also intended to deepen the yellow books.

Yellow books refer to religious books by classical Muslim scholars, also known as *al-kutub al-mu'tabarah* or books that are trusted (Hasani, 2007). These books were written by classical scholars from Sunni schools of thought with the parameters of al-Ash'ari's doctrine (*aqidah*), Islamic jurisprudence (*fiqh*) of four schools, especially al-Shafi'i, and al-Ghazali mysticism (*tasawuf*) (Bruinessen, 1994; R. Lukens-Bull, 2008). Classic books are selected by the school and the traditional Islam in Indonesia as a reference in religion because it is seen to have the chain (*sanad*) linked to Prophet Muhammad. In addition, classic Sunni schools are considered to prioritize moderate Islamic teachings (*tawassuth*) and tolerance (*tasamuh*) because they are able to integrate and balance the use of reason and text in interpreting Islamic teachings (Burhani, 2012).

For the record, Bruinessen (1994) once criticized the tradition of the yellow book as the source of traditional *pesantren*. However, Ni'am (2015) actually proves that the tradition of learning the yellow book makes the *pesantren* "the miniature of moderate Islam in Indonesia". Indonesian *pesantren* have successfully demonstrated their role in articulating moderate and tolerant Islam, one of which is thanks to the yellow book curriculum, which contains many values of moderatism and tolerance. Other studies have also proven that the Indonesian *pesantren* successfully promoted democratic religious culture (Pohl, 2006), multicultural (Raihani, 2012), pluralist,

accommodating, and anti-radicalism (R. Lukens-Bull, 2008)

In this case, the deepening of our books, classical books, become important for students so that they become one of the objectives in implementing Pesantren's PBL. Although Pesantren's PBL gives students freedom of thought, that freedom must not come out of the yellow book frame. Therefore, the teaching of the yellow book is the foundation and spirit of the *pesantren* in shaping the character of students who are moderate and tolerant.

In terms of problem design, this study found that Pesantren's PBL gave autonomy to students to propose and determine the problems discussed. This is different from the PBL problem design procedures agreed by several researchers like Arends (2015), Hung (2019) Pyle & Hung (2019), and (2003). The researchers said that the problem in PBL was designed by the teacher, although according to Arends (2015), it did not rule out the possibility that the teacher could give students the opportunity to participate in choosing the problem to be solved. But this is not the case with *Pesantren's* PBL. PBL problems in *pesantren* do not come from teachers but come from students. Students have the autonomy to propose or offer problems they encounter in real life and then are selected and agreed upon by all students. The teacher only directs and gives input about problems that are feasible or not to be solved. Although it is different from most PBL models, it is precisely here that one of the strengths and uniqueness of PBL is in *pesantren*.

Independence in determining the problem will increase students' sensitivity and knowledge to the real world. Submission of problems by students can also increase motivation, provide a sense of freedom, support the construction of knowledge, even develop metacognitive abilities

(Stokhof et al., 2019). It is because they have a sense of belonging to the problem, and as such, they feel emotionally involved in the problem-solving process (Singh et al., 2019). However, student submission also has weaknesses. The suitability of the problem with the learning objectives and the quality of the problems raised by students can be obstacles in learning. Not all problems raised by students can meet predetermined criteria. Because students propose it, the teacher also cannot adjust the level of difficulty of the problem to be solved. Here, the teacher needs to guide students in agreeing and determining the problem to be solved to fit the criteria (Stokhof et al., 2019).

As for the learning phase, Pesantren's PBL has a special phase that does not exist in Tan's (2003), Barret's (2005), or Arend's (2015) PBL model, which is the phase of presenting solutions and discussions between groups. This phase can be said to be the peak phase in the *bahth al-masa'il* because it is in this phase that each group offers its solution and maintains the solution in front of other groups. So, in addition to interactive discussions between groups with a variety of propositions, data, and arguments, not infrequently, there is quite a serious debate. One group that does not agree with the solution of another group can be involved in a long debate and argument. Discussion to debate in determining this solution is a necessity that can not be avoided in the discussion of religious issues. This is because the method of interpretation of the sources of Islamic teachings, both the al-Qu'ran and the *hadith*, can differ from one group to another, giving rise to implications for different meanings. Likewise, the references from the classic texts used can also be different, giving rise to different solutions.

Because it takes a long time, this phase can be very tiring. Students will gradually get

bored, especially if the debate does not have clear directions and goals. To minimize the weaknesses of this phase, the teacher guides student discussion and debate in the right direction according to the learning objectives. The teacher also guides students to negotiate and compromise the solution with other solutions to be able to find solutions effectively and efficiently and avoid endless debate.

The debate can allow students not only to explore the problem to be solved but also to show a deeper analysis of the problem, including assessment and criticism to find the right solution (Latif et al., 2018). The results of Mumtaz & Latif (2017) study that applied the debate method in PBL also showed that debate could stimulate student confidence, increase students' ability to articulate their thoughts, and demonstrate student's calmness. No less important, a good debate will foster an attitude of tolerance, accepting, and valuing different opinions or perspectives (Mumtaz & Latif, 2017).

More than that, the Pesantren's PBL phase has very clear and distinct characteristics from other PBL, namely the granting of extensive autonomy to students. In Pesantren's PBL, students take almost all roles and responsibilities in learning to start from determining the schedule and turn, preparing resources and facilities, delivering material, raising problems, determining problems, dividing groups, reasoning, searching and analyzing data, making solutions, to evaluating. At the same time, the teacher acts more as a facilitator, guide, or motivator. Even teachers only have the opportunity to appear formally at the opening and end of learning only.

This kind of autonomy will be beneficial to stimulate *self-directed learning* (Leary et al., 2019) and *self-regulated learning*

from students (M. C. English & Kitsantas, 2013). Self-directed learning is defined as awareness, initiative, and acceptance of personal responsibility for their own learning (Leary et al., 2019). While *self-regulated learning* refers to the ability of students to become active students who are metacognitive, motivated, and behaved in their own learning process (M. C. English & Kitsantas, 2013; M. English & Kitsantas, 2019). PBL is seen as one of the learning models that can stimulate students for these two abilities. It should be noted that the teacher is only a guide and a facilitator, while students must be given autonomy to be responsible for their learning (Wijnen et al., 2017).

In summary, Pesantren's PBL, on the one hand, have similarities with some PBL models such as Tan's PBL (2003), PBL Barrett (2005), PBL Arends (2015), but also have differences on the other side. Pesantren's PBL also differ from PBL models developed recently by several researchers such as Bédard (2019) in health, (Charlton-Perez, 2013) in meteorology, or Suh & Seshaiyer (2019) in mathematics. Pesantren's PBL is not only a learning model but has become an intellectual tradition that runs in *pesantren*. Because of this, Pesantren's PBL has unique and distinctive characteristics that emphasize religious moderateism through deepening the yellow book, independence, and responsibility through student autonomy in learning. These characteristics are the basic characteristics of *pesantren* which have been firmly rooted since the establishment of hundreds of years ago, including independence (Ma'arif, 2018), responsibility (Sauri et al., 2018), democratic (Pohl, 2006), multicultural (Raihani, 2012), moderate, tolerant (Ni'am, 2015), and pluralist (R. Lukens-Bull, 2008).

Conclusion

Pesantren's PBL embodied in *the bahth al-masa'il* is one of the intellectual tradition that has run in *pesantren* as old age itself. Apart from some weaknesses, Pesantren's PBL with its current characteristics is one of the PBL models that has been applied in religious education, especially Islamic education. That proves that the educational values of *pesantren*, which are often called traditional and old-fashioned, are still quite relevant at this time. Perhaps this PBL model can be adopted for the learning of Islam in modern Islamic schools or at least inspires the birth of PBL models in the realm of religious education in general. Unfortunately, this study only portrays the description of Pesantren's PBL and its characteristics without experimenting whether Pesantren's PBL can be applied in other institutions or the realm of other religious sciences, considering Pesantren's PBL was born from the tradition of classical Islamic education. To find that out, we need to do further research, of course, on a larger and more detailed scale.

References

- Akrami, M. (2017). From Logic in Islam to Islamic Logic. *Logica Universalis*, 11(1), 61–83. <https://doi.org/10.1007/s11787-017-0158-3>.
- Amri, M., Tahir, S. Z. A. B., & Ahmad, S. (2017). The Implementation of Islamic Teaching in Multiculturalism Society: A Case Study at Pesantren Schools in Indonesia. *Asian Social Science*, 13(6), 125–132. <https://doi.org/10.5539/ass.v13n6p125>.
- Anazifa, R. D., & Djukri, D. (2017). Project- Based Learning and Problem-Based Learning: Are They Effective to Improve Student's Thinking Skills? *Jurnal Pendidikan IPA Indonesia*, 6(2), 346–355. <https://doi.org/10.15294/jpii.v6i2.11100>.
- Arends, R. I. (2015). *Learning to Teach* (10th ed.). McGraw-Hill Education.
- Asrohah, H. (2011). The Dynamic of Pesantren: Responses toward Modernity and Mechanism in Organizing Transformation. *JOURNAL OF INDONESIAN ISLAM*, 5(1), 66–90. <https://doi.org/10.15642/JIIS.2011.5.1.66-90>.
- Barrett, T. (2005). Understanding problem-based learning. In *Handbook of enquiry and problem-based learning: Irish case studies and international perspectives* (pp. 13–26). : CELT, National University of Ireland Galway and All Ireland Society for Higher Education.
- Bassey, M. (1999). *Case Study Research in Educational Settings* (1st ed.). Open University Press.
- Bédard, D. (2019). PBL in Medical Education: A Case Study at the Université de Sherbrooke. In *The Wiley Handbook of Problem-Based Learning* (1st ed., pp. 459–482). John Wiley & Sons, Inc.
- Brown, G. (2019). Civic Islam: Muhammadiyah, NU and the Organisational Logic of Consensus-making in Indonesia. *Asian Studies Review*, 43(3), 397–414. <https://doi.org/10.1080/10357823.2019.1626802>.
- Bruinessen, M. van. (1994). Pesantren and kitab kuning: Maintenance and continuation of a tradition of religious learning. In *Texts from The Islands. Oral and Written Traditions of Indonesia and The Malay World* (pp. 121–145). University of Berne.
- Bruinessen, M. van. (2008). Traditionalist and Islamist Pesantrens in Contemporary

- Indonesia. In *The Madrasa in Asia* (pp. 217–245). Amsterdam University Press.
- Burhani, A. N. (2012). Al-Tawassuṭ wa-l I'tidāl: The NU and Moderatism in Indonesian Islam. *Asian Journal of Social Science*, 40(5–6), 564–581. <https://doi.org/10.1163/15685314-12341262>.
- Chan, M. M., & Blikstein, P. (2018). Exploring Problem-Based Learning for Middle School Design and Engineering Education in Digital Fabrication Laboratories. *Interdisciplinary Journal of Problem-Based Learning*, 12(2). <https://doi.org/10.7771/1541-5015.1746>.
- Charlton-Perez, A. J. (2013). Problem-Based Learning Approaches in Meteorology. *Journal of Geoscience Education*, 61(1), 12–19. <https://doi.org/10.5408/11-281.1>
- Creswell, J. W. (2012). *Educational Research* (4th ed.). Pearson.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications Inc.
- Dahl, B. (2018). What Is the Problem in Problem-Based Learning in Higher Education Mathematics. *European Journal of Engineering Education*, 43(1), 112–125. <https://doi.org/10.1080/03043797.2017.1320354>.
- Dole, S., Bloom, L., & Doss, K. (2017). Engaged Learning: Impact of PBL and PjBL with Elementary and Middle Grade Students. *Interdisciplinary Journal of Problem-Based Learning*, 11(2). <https://doi.org/10.7771/1541-5015.1685>.
- Eglitis, D. S., Buntman, F. L., & Alexander, D. V. (2016). Social Issues and Problem-based Learning in Sociology: Opportunities and Challenges in the Undergraduate Classroom. *Teaching Sociology*, 44(3), 212–220. <https://doi.org/10.1177/0092055X16643572>.
- English, M. C., & Kitsantas, A. (2013). Supporting Student Self-Regulated Learning in Problem- and Project-Based Learning. *Interdisciplinary Journal of Problem-Based Learning*, 7(2), 128–150. <https://doi.org/10.7771/1541-5015.1339>.
- English, M., & Kitsantas, A. (2019). PBL Capstone Experience in Conservation Biology: A Self-Regulated Learning Approach. In *The Wiley Handbook of Problem-Based Learning* (1st ed., pp. 507–528). John Wiley & Sons, Inc.
- Gazali, H., & Malik, A. (2009). Pesantren and the Freedom of Thinking: Study of Ma'had Aly Pesantren Sukorejo Situbondo, East Java, Indonesia. *Al-Jami'ah: Journal of Islamic Studies*, 47(2), 295–316. <https://doi.org/10.14421/ajis.2009.472.295-316>.
- Hung, W. (2019). Problem Design in PBL. In *The Wiley Handbook of Problem-Based Learning* (1st ed., pp. 249–272). John Wiley & Sons, Inc.
- Izfanna, D., & Hisyam, N. A. (2012). A comprehensive approach in developing akhlaq: A case study on the implementation of character education at Pondok Pesantren Darunnajah. *Multicultural Education & Technology Journal*, 6(2), 77–86. <https://doi.org/10.1108/17504971211236254>
- Krakovski, M. (2017). Developing and Transmitting Religious Identity: Curriculum and Pedagogy in Modern Orthodox Jewish Schools. *Contemporary Jewry*, 37(3), 433–456. <https://doi.org/10.1007/s12397-017-9205-x>.

- Latif, R., Mumtaz, S., Mumtaz, R., & Hussain, A. (2018). A comparison of debate and role play in enhancing critical thinking and communication skills of medical students during problem based learning: Views About Effectiveness of Two Teaching Strategies. *Biochemistry and Molecular Biology Education*, 46(4), 336–342.
<https://doi.org/10.1002/bmb.21124>.
- Leary, H., Walker, A., Lefler, M., & Kuo, Y.-C. (2019). Self-Directed Learning in Problem-Based Learning: A Literature Review. In *The Wiley Handbook of Problem-Based Learning* (1st ed., pp. 181–198). John Wiley & Sons, Inc.
- Lin, L.-F. (2018). Integrating the Problem-Based Learning Approach into a Web-Based English Reading Course. *Journal of Educational Computing Research*, 56(1), 105–133.
<https://doi.org/10.1177/0735633117705960>.
- Lukens-Bull, R. (2008). The Traditions of Pluralism, Accommodation, and Anti-Radicalism in The Pesantren Community. *JOURNAL OF INDONESIAN ISLAM*, 2(1), 1–15.
<https://doi.org/10.15642/JIIS.2008.2.1.1-15>.
- Lukens-Bull, R. (2010). Madrasa by Another Name: Pondok, Pesantren, and Islamic Schools in Indonesia and Larger Southeast Asian Region. *JOURNAL OF INDONESIAN ISLAM*, 4(1), 1–21.
<https://doi.org/10.15642/JIIS.2010.4.1.1-21>.
- Lukens-Bull, R. A. (2001). Two Sides of the Same Coin: Modernity and Tradition in Islamic Education in Indonesia. *Anthropology & Education Quarterly*, 32(3), 350–372.
<https://doi.org/10.1525/aeq.2001.32.3.350>.
- Ma'arif, S. (2018). Education as a Foundation of Humanity: Learning from the Pedagogy of Pesantren in Indonesia. *Journal of Social Studies Education Research*, 9(2), 104–123.
- Mumtaz, S., & Latif, R. (2017). Learning through debate during problem-based learning: An active learning strategy. *Advances in Physiology Education*, 41(3), 390–394.
<https://doi.org/10.1152/advan.00157.2016>.
- Nagarajan, S., & Overton, T. (2019). Promoting Systems Thinking Using Project- and Problem-Based Learning. *Journal of Chemical Education*, 96(12), 2901–2909.
<https://doi.org/10.1021/acs.jchemed.9b00358>.
- Ni'am, S. (2015). Pesantren: The miniature of moderate Islam in Indonesia. *Indonesian Journal of Islam and Muslim Societies*, 5(1), 111–134.
- Nilan, P. (2009). The 'spirit of education' in Indonesian Pesantren. *British Journal of Sociology of Education*, 30(2), 219–232.
<https://doi.org/10.1080/01425690802700321>.
- Nurtawab, E. (2019). The Decline of Traditional Learning Methods in Changing Indonesia: Trends of Bandongan-Kitāb Readings in Pesantrens. *Studia Islamika*, 26(3), 511–541.
<https://doi.org/10.36712/sdi.v26i3.11026>.
- Pelu, I. E. A. S. (2016). The Rechtsvinding Epistemology of Nahdlatul 'Ulama (NU). *Journal of Law, Policy and Globalization*, 53(0), 78–85.
- Pohl, F. (2006). Islamic Education and Civil Society: Reflections on the Pesantren Tradition in Contemporary Indonesia.

Comparative Education Review, 50(3), 389–409. <https://doi.org/10.1086/503882>.

Pribadi, Y. (2013). Religious Networks in Madura: Pesantren, Nahdlatul Ulama, and Kiai as the Core of Santri Culture. *Al-Jami'ah: Journal of Islamic Studies*, 51(1), 1–32.

<https://doi.org/10.14421/ajis.2013.511.1-32>.

Pyle, E., & Hung, W. (2019). The role of subject presence type on student motivation in a PBL learning environment. *Advances in Health Sciences Education*, 24(4), 643–663. <https://doi.org/10.1007/s10459-019-09889-2>.

Raihani. (2012). Report on multicultural education in pesantren. *Compare: A Journal of Comparative and International Education*, 42(4), 585–605. <https://doi.org/10.1080/03057925.2012.672255>.

Sauri, S., Nursyamsiah, N., & Nurbayan, Y. (2018). A Critique of Local Wisdom Values in Indonesia's Pesantren. *Pertanika Journal of Social Sciences & Humanities*, 26(T), 37–50.

Si, J., Kong, H.-H., & Lee, S.-H. (2019). Developing Clinical Reasoning Skills Through Argumentation With the Concept Map Method in Medical Problem-Based Learning. *Interdisciplinary Journal of Problem-Based Learning*, 13(1). <https://doi.org/10.7771/1541-5015.1776>.

Singh, G., Shaikh, R., & Haydock, K. (2019). Understanding student questioning. *Cultural Studies of Science Education*, 14(3), 643–697. <https://doi.org/10.1007/s11422-018-9866-0>.

Srimulyani, E. (2007). Muslim Women and Education in Indonesia: The pondok

pesantren experience. *Asia Pacific Journal of Education*, 27(1), 85–99. <https://doi.org/10.1080/02188790601145564>.

Stentoft, D. (2019). Problem-Based Projects in Medical Education: Extending PBL Practices and Broadening Learning Perspectives. *Advances in Health Sciences Education*, 24(5), 959–969. <https://doi.org/10.1007/s10459-019-09917-1>.

Stokhof, H., de Vries, B., Bastiaens, T., & Martens, R. (2019). Mind Map Our Way into Effective Student Questioning: A Principle-Based Scenario. *Research in Science Education*, 49(2), 347–369. <https://doi.org/10.1007/s11165-017-9625-3>.

Suh, J. M., & Seshaiyer, P. (2019). Promoting Ambitious Teaching and Learning through Implementing Mathematical Modeling in a PBL Environment: A Case Study. In *The Wiley Handbook of Problem-Based Learning* (1st ed., pp. 529–550). John Wiley & Sons, Inc.

Tan, O.-S. (2003). *Problem-Based Learning Innovation: Using Problems to Power Learning in the 21st Century* (1st ed.). Cengage Learning.

Ulger, K. (2018). The Effect of Problem-Based Learning on the Creative Thinking and Critical Thinking Disposition of Students in Visual Arts Education. *Interdisciplinary Journal of Problem-Based Learning*, 12(1). <https://doi.org/10.7771/1541-5015.1649>.

Valdez, J. E., & Bungihan, M. E. (2019). Problem-Based Learning Approach Enhances the Problem Solving Skills in Chemistry of High School Students. *Journal of Technology and Science Education*, 9(3), 282–294.

Walbridge, J. (2011). *God and Logic in Islam: The Caliphate of Reason* (1st ed.). Cambridge University Press.

Wijnen, M., Loyens, S. M. M., Smeets, G., Kroeze, M., & van der Molen, H. (2017). Comparing problem-based learning students to students in a lecture-based curriculum: Learning strategies and the relation with self-study time. *European Journal of Psychology of Education*, 32(3), 431–447. <https://doi.org/10.1007/s10212-016-0296-7>.

Woodside, A. G. (2010). *Case Study Research: Theory, Methods, Practice* (1st ed.). Emerald Group Publishing Limited.

Worsley, H. (2005). Problem-based Learning (PBL) and the Future of Theological Education: A Reflection Based on Recent PBL Practice in Medical Training Compared to Emerging Trends in Residential Ministerial Training for Ordination. *Journal of Adult Theological Education*, 2(1), 71–81. <https://doi.org/10.1558/jate.2.1.71.65718>.

Yin, R. K. (2002). *Case Study Research: Design and Methods* (3rd ed.). Sage Publications Inc.

Zuhdi, M. (2006). Modernization of Indonesian Islamic schools' curricula, 1945–2003. *International Journal of Inclusive Education*, 10(4–5), 415–427. <https://doi.org/10.1080/13603110500430765>