

Seven Jump PBL to Connect Modern Problems to Sciences

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ABSTRACT

Contemporary problems are often visible only from one facet, even though there are many components that could become the solution to the issues. The sphere of sciences which are to be had in several universities can also be correlated with the current issues through their views. This research aimed to facilitate and assist college students in relating modern problems to their discipline of sciences. This research offered Seven Jump Problem-Based Learning (PBL). The model is performed via an academic in which students are divided into small groups and facilitated through an instructor. This research used class action research and qualitative and quantitative technique. The result of this research is the students can correlate contemporary problems to their fields.

Keywords: Contemporary Problems, Field of Science, PBL, Seven Jump

INTRODUCTION

This research was conducted due to a lack of Student-Centered Learning (SCL) in courses with more than two credits (SKS), especially the courses that are included in the University Compulsory Courses (MKWU). It is certainly not convenient for students to experience a rigid learning method such as Teacher-Centered Learning (TCL). The maximum attention span of a human is one hour; longer than that, the human mind can no longer concentrate. Problem-Based Learning (PBL) is considered a solution to improving the quality of learning. This is because this learning highly emphasizes student engagement. It is expected that students can meet the Course Learning Outcomes when the Seven Jump PBL is implemented. Students of exact sciences sometimes lack social science knowledge and lack interest in social issues. Therefore, Seven Jump is the best cyclical model for learning PBL.

Another problem with the previous learning method is that both lecturer and students still use the classical method. The lecturer delivers the materials while the students pay attention to the lecturer and take notes. According to Putra and Purwasih (2015), this learning method is not good because there is a lack of student engagement. In fact, students can more easily understand learning materials if they are actively engaged in the teaching and learning activities.

The sample of this study was the learning of the Islam Rahmatan Lil 'Alamin course held in the Study Program of Pharmacy and Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Islam Indonesia (UII). The learning quality of the Islam Rahmatan Lil 'Alamin course as a compulsory course (MKWU) is always improved. The important point of MKWU learning is basically classroom activities instead of traditional teacher-centered learning. The Islam Rahmatan Lil 'Alamin course was selected because it contains quite complex learning materials and requires Higher order thinking skills (HOTS). Higher-order thinking skills are important for building character, improving students' literacy, improving competencies, and enriching the curriculum (Sapi'i, 2019, p. 64). These learning outcomes are certainly beneficial for the study program. This course discusses the contemporary problems of Muslims and Islam in science. Discussing the contemporary problems of the people certainly cannot be done only from one side. There should be a comparison, so the opinions or ideas of students from different study programs are needed to see Islam from different perspectives.

Teaching methods have so far developed SCL and network-based learning (online). This type of learning is considered the same as other courses. The learning method used in the Islamic Rahmatan Lil 'Alamin course should also be developed. The grant was given to conduct research to increase students' understanding of the Islamic Rahmatan Lil Alamin course and to analyze students' knowledge from different study programs, especially about the contemporary problems of Muslims. The innovation proposed was to optimize the seven jumps method. This method was emphasized more when discussing learning materials concerning the contemporary issues of Islam. Both online and offline learning were still used in this course, and so were lecture and discussion methods. Classical learning was done when discussing learning materials related to Islam in the discipline of science. The quality of education should be improved (Kuron, Sumual, & Tuerah, 2022). Thus, Seven Jump PBL is one of the improving methods.

Another motivation for conducting this study was to mix various study programs in one tutorial class, making it possible to analyze Islam from different scientific perspectives. The next motivation was to break through and bridge the boundaries of science, allowing each field of science to meet in formal learning that is based on the semester credit unit (SKS) instead of the Participation Credit Unit (SKP). In addition, this grant was conducted

to open up an opportunity that this course could become an open inter-study program course based on a consideration that the learning model takes into account contemporary problems that can be understood by all students regardless of their educational backgrounds. Based on the description mentioned above, it can be said that the role of lecturers in this learning model is more of a facilitator. In addition, the use of the seven-jump learning method can offer more freedom for students to meet the predetermined Course Learning Outcomes (Sukestiyarno & Hartutik, 2021).

In this research, there are two problems that be formulated. First, the Seven Jump Problem-Based Learning (PBL) way correlates contemporary problems to the students' field of science. Second, the Seven Jump PBL method integrates Islamic knowledge and values in science and health. The objectives of this research are to analyze the optimization of the Seven Jump PBL in correlating contemporary problems to the students' field of sciences and integrating Islam in the field of sciences and health. In addition, to analyze the optimization of the Seven Jump PBL to achieve students' ability to work together for self-development and to work together by contributing when a part of teamwork.

LITERATURE REVIEW

The literature review used to support the research and to develop the learning model was a publication entitled Problem-Based Learning (Wood, 2003). The publication explains that the Seven Jump PBL method is suitable for health and science-related study programs. The learning and teaching processes that are carried out in small groups are appropriate to boost students' understanding.

Antepohl and Herzig (1999) explained that students were proven to obtain positive effects by using this learning model. This is because they were given additional learning resources, teamwork skills, as well as fun and interdisciplinary learning experiences. Sophan, Arif, Hendrawan, and Mardiyah (2018) said that the lecturer should provide creative and clear methods. On the other hand, the students have to be more active so that course learning outcomes will be achieved (Sophan et al., 2018).

Seven Jump PBL can improve students' creativity, skill of argumentation, and also social literacy. The students could also be the decision maker when they met the problems given to them through assignment forms. They were able to solve the problems from some perspectives available in each group (Tan, 2003).

This method has to divide the class into several groups. They get some specific topics that will be discussed around them. This method can encourage the students to study more and also understand the theme to solve the problems. The lecturer should design a good scenario, so the class can run more effectively. Discussion is the main activity of this method (Sandaria & Purnamasari, 2021).

Most disciplines that use Seven Jump PBL in their learning methods have come from health science fields. However, no matter if the other disciplines apply this one, especially Islamic Studies. The students drive to enrich their productive reading, so they can discuss with the other friends in their groups effectively. This method can improve the cognitive ability of the students (Newman, 2005).

The students who studied in Seven Jump PBL got a better results than the other. There were some reasons for it. Active learning has many influences on collaboration and motivation. On the other hand, the lecturer must create a good structure in the learning environment because it can greatly motivate the students to learn more (Newman, 2005).

RESEARCH METHOD

The formulation of Course Learning Outcome (CLO) as a learning objective has been specified as follows; students could correlate contemporary problems faced by society in relation to their field of science with Islamic aspects. Faculty of Mathematics and Natural Sciences students who have taken this course are expected to understand Islam from the perspective of their field of science. In the future, it is expected that CLO will be adjusted and directed to something that can be done by students. As reflected in the name of the course (Islam Rahmatan lil 'Alamin), which means Islam spreads love for the universe, this can also be interpreted that the religion taught by the Prophet SAW can be integrated with any science in this world. The correlation with the Indonesian Qualification Framework (KKNI) is in attitude and knowledge. The application in the Ullil Albab Curriculum of UII can be in the form of an Islamic personality and integrative knowledge (Universitas Islam Indonesia, 2016, p. 11). The assessment method to measure the second problem formulation is the seven jump PBL assessment, assessment per chapter, and final exam. The assessment per chapter is expected to help students obtain a better understanding of the learning materials and no longer do one-night study prior to taking an exam. This learning method is expected to help both students and lecturers (Togas, Naharia, Manggopa, Rompas, & Oroh, 2021).

The first problem formulation was measured using the Mid-Semester Exam and structured assignments that covered all the aspects of the seven jump PBL, including being a part of teamwork, positioning oneself in a group, listening, recording, helping each other, appreciating the opinions of a friend, making a critical evaluation of literature, learning independently, and using resources, as well as enhancing presentation skills. The planned learning strategies and methods covered both online and offline, maximizing SCL and open classes. The percentage of online learning was 15% of the total learning activities, including independent learning and video making. Because the course scheme used a blended learning model, the online learning model was also developed using more YouTube videos and similar services available in Google Classroom and Zoom. Learning media using Zoom is very effective in avoiding anxiety, especially for students (Alia, Antasya, Aireen, Amy, & Malthane, 2022). The online assignments can be in the form of an activity where the students are asked to review or give feedback on the learning materials by using YouTube. In addition, the offline learning module provided for the students was the Islam Rahmatan Lil 'Alamin Textbook which the researcher wrote. The online interactive media can be YouTube, Google Classroom, and Interactive Mentimeter.

Students who will take this course are projected to meet two things. First, they will pass the course, and 90% will obtain an A grade. Second, they will have teamwork skills to solve problems. This is useful not only for this course but also for other courses. In addition, it also provides benefits for Pharmacy students who want to pursue a pharmacist degree after obtaining a bachelor's degree because they have been familiar with the Seven Jump PBL. For students of Chemistry Education, this learning method is useful as a reference when they become a teacher in the future.

The seven jump PBL model was done in 6 meetings, consisting of 4 meetings before the Mid-Semester Exam, with the learning materials focusing on the contemporary problems of Muslims. Technically, one tutorial group consisted of 12 students from Pharmacy and Chemistry Education study programs. Two tutorial sessions were held after the Mid-Semester Exam, with the materials focusing on Islamic studies in the sciences. The tutorials focused more on Islamic studies based on the study programs, so the tutorial groups consisted of students from the same discipline of sciences. The learning took place in the classrooms of the Faculty of Mathematics and Natural Sciences, UII.

Open-class knowledge was also used in this course. Using the seven jumps, one group consisted of 10-12 students from different study programs. At the end of the learning session, the students were given a questionnaire to express their responses to the learning model. Attendance, final grades, multimedia task assessment, and the assessment of each chapter were used to measure the learning outcomes. In the Seven Jump PBL, the students were required to be able to apply teamwork skills properly. The philosophy and techniques of the Seven Jump PBL were explained in detail in the second lecture. Assignments had been arranged in detail in separate sheets that were distributed to the students through Google Classroom. The worksheets contained everything related to problem-solving through the Seven Jump PBL. When observations were made, reflection sheets were also distributed to the observers.

RESULTS

In the previous semester's learning, the students who had been used to attending 2-credit Islamic compulsory courses felt that the Islam Rahmatan Lil 'Alamin course was quite difficult and took long. Therefore, it was essential to increase the duration of learning that emphasized student engagement. The implementation of this learning method resulted in a recommendation on the eligibility of the Islam Rahmatan Lil 'Alamin course to be given 3-credits. The 3-credits given to the course expectedly could meet the targeted learning outcomes. In addition, the tutorial learning expectedly could suit the 3-credit weight.

The previous learning model was in the form of classical lectures, group discussions, Google Classroom, Interactive Mentimeter, and YouTube video-based learning. The student response to this method was quite positive. However, it was necessary to improve the learning quality by mixing students from different study programs in one tutorial group. This tutorial model served as one of the indicators to measure integration. This study expectedly produces another outcome, for instance, a recommendation on MKWU at UII, especially guidelines on social and exact sciences learning. Therefore, this method can be used by other lecturers to teach the same course or other courses.

Another problem was the fact that the students had different backgrounds. Some of them graduated from Islamic boarding schools, Islamic high schools, and Senior High Schools, and some of them even graduated from non-Islamic educational institutions. The person who submitted the proposal also had experience teaching non-Muslim students. The next problem related to this course was the fact that most of the materials of the Islam Rahmatan lil 'Alamin course were abstract and conceptual, causing the Faculty of Mathematics and Natural Sciences students to not be interested in this course. Moreover, most of the students graduated from Senior High Schools, so they lacked religion-related knowledge. Thus, a very well-developed and interesting method is needed to create a fun teaching and learning process. A change in the teaching method as proposed in this grant program is expected could help students integrate and correlate Islam with their field of sciences.

The implementation of the learning method was divided into several main stages. The first stage starts with the preparation of learning processes, updating the Syllabus and Semester Learning Plan by including the implementation of the learning models, which were the main points of this stage. Then, purchasing and procuring books is required for learning. After that, the next stage is developing learning materials, textbooks, assignments, quizzes, and reviews of the learning materials to be uploaded on Google Classroom and YouTube. The developed learning materials have passed a review process at the university level because the researcher was a member of the team that

developed the Ulil Albab Curriculum. A particular academic product of UII was the continuous phase and also creating a scenario for each PBL.

The second stage was the implementation of learning processes. The first meeting started with a course contract that discussed tolerance for tardiness, the assessment component, group divisions, and books used as references. The first meeting did not discuss the learning materials because the students might experience shock therapy, especially in this study in which PBL was implemented in 6 meetings, and students from other study programs were involved.

The learning had been implemented in accordance with the semester learning plan. In the second meeting, the seven jump PBL workshop was held to help students understand the philosophy and learning techniques to be used. In the third meeting, an outing class was held by watching a movie entitled *The Power of Love* to help the students understand Islam and global issues. The core of the PBL learning started to be applied from the fourth to ninth meetings. In the PBL learning, an assessment rubric is as follows.

Table 1. PBL Assessment Rubric

N o	Criteria	Max Sco re	Number in Student Attendance List																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A	MEETING 1																		
1	Ability to read the Quran	5																	
2	Discipline (timely attendance)	5																	
3	Dress code (in accordance with the rules)	5																	
4	Communication & engagement	5																	
5	The relevance of opinion to the topic	5																	
6	Discussion (P1): - Ability to define problems - Ability to explain problems	5																	

B	MEETING 2																		
1	Ability to read the Quran	5																	
2	Discipline (timely attendance)	5																	
3	Dress code (in accordance with the rules)	5																	
4	Team work	5																	
5	The relevance of opinions to the topic	5																	
6	PRESENTATION (P2):																		
	- Preparation of task	5																	
	- Conformity of Learning Outcomes	5																	
	-Ability to answer questions from the Lecturer (Tutor)	5																	
C	MINI QUIZ SCORE	10																	
D	REPORT SCORE	15																	

The learning was quite interesting in the context that it was not as expected by the lecturer. For instance, during the PBL sessions that involved students from various study programs, those with the highest engagement were from the Chemistry Education study program. Meanwhile, the lecturers previously predicted that the Pharmacy students would show the highest engagement because they were the highest in number with a ratio of 12:7. In addition, they also had different backgrounds in which the passing grade and number of applicants of Pharmacy students were far above Chemistry Education. In fact, inter-study program learning is inconvenient for most students. However, it also provides benefits, such as breaking through the boundaries of science and making students care about their surroundings because students expectedly have concern for society at the end of the learning method.

There were some differences with the previous learning method. The previous method gave an opportunity for the students to discuss a topic actively, but the discussion was not as structured and detailed as the discussion in PBL. In addition, the previous method did not provide an opportunity to exchange information with students from other study programs. In fact, the discussion groups in PBL were also smaller so the students could be more focused, unlike in the previous method, where most students ignored a student who was delivering a presentation in front of the class. In addition, having good communication and speaking skills is needed for each student (Pusung, Ratu, & Rotty, 2020).

Table 2. Problems and Solutions

Problems/obstacles encountered	Resolution efforts	Results of implementing solutions
There was a tutorial group that held PBL in the evening.	Informing all tutors and students that the learning activity should end by Maghrib time.	All the tutorials were carried out in the morning until before the Maghrib time; no tutorial was done in the evening.

In general, there was no change in the learning plans. The changes were only in terms of the tutorial technique. In the previous method, the fifth and sixth tutorials were facilitated by student tutors from the Pharmacist degree, but based on an evaluation conducted after four tutorials using PBL, the number of students in a group was considered too many (17 students), so the number of groups was added. Consequently, more tutors were needed, so the lecturers took over the tutoring tasks independently.

Table 3. Comparison of PBL Results

Pharmacy A	Pharmacy B	Chemistry Education A	Chemistry Education B	Pharmacy (Average)	Chemistry Education (Average)
78.25	73.55	78.68	77.36	75.9	78.02

Table 4. Comparison of CLO Evaluation Results 1

Pharmacy A	Pharmacy B	Chemistry Education A	Chemistry Education B	Pharmacy (Average)	Chemistry Education (Average)
91.61	74.06	88.75	87.17	82.835	85.0025

Table 5. Comparison of CLO Evaluation Results 2

Pharmacy A	Pharmacy B	Chemistry Education A	Chemistry Education B	Pharmacy (Average)	Chemistry Education (Average)
92.43	85.64	82.84	83.52	89.035	83.18

Table 6. Comparison of Final Score

Pharmacy A	Pharmacy B	Chemistry Education A	Chemistry Education B	Pharmacy (Average)	Chemistry Education (Average)
87.05	82.23	84.21	79.1	84.64	81.655

In addition, the program design also changed especially for Pharmacy A. At the 11th meeting, an online class should have been based on the RPS (Semester Learning Plan), but a Flipped Classroom was held instead. This is because the students had not completed their assignments at the 10th meeting, and there were some groups that had not presented their assignments in front of the class because the similarity index of their articles exceeded the limit, making them have to rewrite their articles.

The Open Class was held twice, namely before and after Mid-Semester Exam. During these two meetings, the first and second observations were observed by different persons, but it was not a substantive problem. The observers who were present at the first observation were the Director of the Directorate of Academic Development at UII and a lecturer from of Pharmacy Study Program at UII. Meanwhile, the observers at the second observation were the Head of the Curriculum Development Division, the Directorate of Academic Development, and a lecturer from the Pharmacy Study Program.

The program's design also changed for the third time. For instance, when determining the procedure for the final exam, the students expressed their opinions about the mid-semester exam using the Interactive Mentimeter. This technique could encourage student engagement. As a result, the UTS was a closed-book exam for the students of class A but a take-home exam for the students of class B.

Evaluation of the Learning Model

The average UTS score was 90.77, the highest was 100, and the lowest was 0. The UAS score average was 84.64, the highest was 100, and the lowest was 0. Assessment/assignment also be used to measure Learning Outcomes, and to measure the first Course Learning Outcome, such as students could correlate the contemporary problems encountered by society to their field of science and Islamic aspects, Mid-Semester Exam scores, and assessment of PBL results were used, including quizzes. Meanwhile, in CLO 2, students could find and explain the Quranic verses related to their field of science, which was measured by assessment of PBL, UAS, paper assignments, YouTube videos, and video conferences. Through these assessments, students' ability to integrate Islamic knowledge and values in the field of Pharmacy can be known.

The problem formulation of this study was regarding confirmation with CLO 1, and the process of the Seven Jump Problem-Based Learning (PBL) correlate the contemporary problems of society to their field of science. The measurement was carried out by counting the number of students who had the ability to correlate the contemporary problems of society to their field of science, divided by the total number of students who took the course. The performance indicator was no less than 80% of the students should have the ability to correlate the contemporary problems of society to their field of science. The result showed that the average Mid-Semester Exam score was 90.77, meaning that CPMK 1 was achieved.

The second problem formulation was relevant to CLO 2. The way of the Seven Jump PBL method integrates Islamic knowledge and values into health and science. The measurement was done by counting the number of students who had the ability to integrate Islamic knowledge and values into science and health, divided by the total number of students who took the course. The performance indicator was no less than 75% of the students should have the ability to integrate Islamic knowledge and values into science and health. The result showed an average CLO 2 score of 89.11, meaning that CPMK 2 was achieved. The baseline data to measure the program success indicators are as follows.

Table 7. Comparison with Previous Learning

No	Component	2017/ 2018	2019/ 2020	Status
1	Lecturer's Performance Score	3.87	3.83	Decreased
2	Average score	76.76	84.64	Increased
3	Attendance (%)	88.61	91.81	Increased

For the final score, the average score was 84.64, the highest score was 94.04, and the lowest one was 0. The 0 scores were given because the student never attended any class. Compared to the Mid-Semester Exam score, there was an increase in the average final score. This was understandable because there was only one assessment component of the Mid-Semester Exam, namely the result of the sit-in exam, while there were various assessment components for the final score, i.e., attendance, PBL assessment, assignments, Mid-Semester, and final exam. The performance indicator was no less than 90% of the students should obtain a grade of A. Based on the results, it can be said that the performance was successful, and the students had a good understanding of the materials. The lecturer's performance score is used to measure student satisfaction, one of the learning systems' success factors (Fozeli, Sani, Mustafa, Khalid, & Chawla, 2022).

DISCUSSION

As previously mentioned and implicitly discussed by the tutors during the tutorial evaluation, the students from Chemistry Education showed more enthusiasm than the Pharmacy students. This certainly needs serious attention because Pharmacy students who will pursue a Pharmacist degree in the future will definitely use PBL. This might be because two of the three scenarios given were related to social matters, something rarely learned by Pharmacy students. On the other hand, some of the courses in Chemistry Education are related to social disciplines.

The data in Table 4 support the previous argument that the Chemistry Education students achieved better CLO 1 than the Pharmacy students. The assessment result of Pharmacy A was also better than that of Pharmacy B. This might be because half of the students of class A were students of the class of 2018, who had better academic records than students of the class of 2017. On the other hand, class B was dominated by the students of the class of 2017, and only one student was from the class of 2018.

A unique phenomenon was found based on the data of the CLO 2 assessment. The Pharmacy students had better results than the Chemistry Education students. This might be because the given scenarios to measure CLO 2 were related to the study program. The Pharmacy students could more properly learn the materials because they had been provided with textbooks written by their lecturers. On the other hand, the Chemistry Education students did not have any literature, so they had to learn the materials on their own.

In terms of the results of the PBL and CLO 1 assessment, the Pharmacy students were still lower than the Chemistry Education students. However, the final score data were the opposite. The Chemistry Education students were lower than the Pharmacy students. This might be because the lecturer became a tutor as a part of the CLO 2 assessment. In addition, the students were also well-directed when working on other assignments because they had the textbooks, and the scenarios given to the students were related to health/pharmacy. In fact, it is crucial to pay attention to the given methods because it is the core of PBL. It is better to design methods related to Pharmacy. There are challenges when teaching students of exact sciences who tend to be less concerned about social issues, except for those who become activists and mobilizers in society. There is a tendency for students of exact sciences to have less concern about social issues.

The use of various media, including Google Classroom, Zoom, Interactive Mentimeter, and YouTube is a form of feedback from lecturers to students. This can be in the form of learning materials, learning media, or a means of uploading discussion results. Students are more interested in these media because they can have direct interaction with other fellow students and their lecturers through the internet, and the results can be known in real-time. All parties must pay attention to the fast development of technology. These media contribute to reducing the stress level of students so that they enjoy the class (Mui et al., 2022).

The first mini-quiz was related to how Islam sees demonstration, which was designed in such a way that the students were able to solve the problems properly. A tendency of the lecturers and the tutors were avoided, so a written instruction was given on the answer sheet that the students should answer the questions by referring to how Islam sees demonstration, whether it is haram (prohibited) or mubah (permissible) and the students should also be wise in responding to the questions in this course.

The students still had gender bias during the learning, especially when deciding on the group leader. There was no specific rule that the group leader had to be a male student, but all the group leaders selected were male students. In fact, these group leaders were awkward when leading the discussion because some female students had better mastery of the discussion materials, and they seemed to have the potential to be the group leaders. However, there was a perception that the group leader had to be a male student, so none of these female students were selected as a leader regardless of their knowledge. There were some notes from the lecturers as follows. The learning objectives in this activity supported CLO because the students were really directed to be able to correlate to their discipline of science. The learning activities were already in line with the learning objectives or CLO because the students had the ability to correlate the contemporary problems faced by society to the field of science and Islamic aspects. The learning activities were authentic because the activities were really meaningful and represented a real situation or in the form of a realistic simulation of a real situation.

In general, discussions based on learning, thinking, and reflecting were achieved. However, a weakness of this model is that the discussion could not be focused on without a tutor's moderation. As a strategy of the lecturer in using this discussion method, the facilitator or tutor should pay more attention to the direction of the discussion. In addition, the discussion results were still normative yet less explorative. It is better to have a discussion without students bringing a book; bringing notes is adequate, or not bringing notes at all is even better. It is also crucial for a tutor to break a discussion deadlock when no one is willing to express an opinion.

The researcher had some reflections regarding the second observation. Thus, the learning that had been implemented successfully encouraged the students to actively learn by doing, thinking, and reflecting because the students could grasp the understanding of the learning material through a group discussion. They were also able to think about a given problem. The students could also relate the learning materials to their daily life. There had been interactions between the students and the tutors as well as between the students and other students. When the students had finished delivering a presentation, the tutor then gave a review.

The students were quite enthusiastic when the learning was entirely online because they did not have to come to classes or on campus. They only had to access the learning materials from the internet through their handphones or laptops. Then they could interact with their lecturers or friends. The students gave positive responses; they even wanted the remaining meetings to be held online.

In general, the students were considered to have the ability to analyze a teamwork opportunity for self-development and work as well as the ability to make a positive contribution when a part of teamwork. This can be seen from the students' final scores, which were satisfactory. The students understood that, although this course belongs to the university's compulsory courses, the learning materials were closely related to their discipline of science. The PBL method is indeed interesting because it prioritizes SCL, but it requires much more effort, especially from the lecturers. This is because there are several things that must be described in detail.

Referring to the data of the previous academic year, it could be said that this program was 66.67% successful. However, referring to the overall results, it can be said that the learning was 100% successful. The Lecture's Performance Score decreased because the lecturers this semester were often absent due to some work out of town. However, there was a reschedule which might make the students feel inconvenienced. However, the decrease in Lecturer's Performance Score was insignificant because it was only 0.04. In fact, the Lecturer's Performance Score declined but the average final score and student attendance increased by 7.88 and 3.2%, respectively.

During the implementation of the program, it can be said that no significant obstacles were encountered. However, some students were not actively engaged during the discussion. The lecturer then changed the technique of implementing PBL, including reorganizing the number of students in a group, changing the tutors, and changing the duration of the tutorials. Besides, some students did not show any respect to their friends or tutors. This certainly became a concern because the aspect of morals is prioritized in this course as part of the implementation of Rahmatan Lil 'Alamin.

Until the end of the semester, the learning outcome was 100% successful. The program can also be said to be successful with an indication that in another course held this semester, namely the Halal Pharmaceutical Product Guarantee course, which is related to the Islam Rahmatan Lil 'Alamin course, in which the researcher was a part of the lecturer team, the students obtained an average CLO 1 score of 82.77. This is in line with the outcome of the Islam Rahmatan Lil 'Alamin course, indicating that the students had a thorough understanding of the learning materials and they were enthusiastic. The outputs produced were Semester Learning Plan and other supporting documents such as the syllabus and worksheets. In addition, textbooks that contain the learning materials are also planned to be one of the outputs as an improvement of the existing literature.

The lesson learned from the implementation of the grant is that the students could apply the learning materials in other courses, correlate the knowledge of their field of science to the development of Islamic science, show a harmony between science and morals, and have a thorough understanding. It can also be said that the enthusiasm for learning was directly proportional to the learning outcomes. An impact of the implementation of the grant on the learning process, both in the relevant course and in other courses at the study program level was to strengthen the Pharmacy graduate profiles who have a prophetic character. This is important given that Pharmacy is not only related to both general and specific skills. Pharmacists are also required to have a prophetic character so they can bring light to the universe.

The research objectives have been met. This is because, as described in the background, the duration of the Islam Rahmatan Lil 'Alamin course was considered too long, making the students feel bored. Meanwhile, the supporting factor is that the learning model has been completely changed to SCL, allowing the students to make collaboration with each other. In addition, the CLO has been achieved. The supporting factor is the availability of textbooks that direct the students during their learning. The textbooks will be improved or revised along with the implementation of the learning.

The CLO has been in line with the Learning Outcome (LO). This is because CLO is derived from LO. An improvement has been made, namely, when there was a LO assessment, the lecturer consulted with the head of the study program related to CLO in accordance with the formulation of LO. The assessment/task/test has been in line with the measured CLO. This is because the learning materials and CLO were the same in number, making it easier to measure.

In terms of the WOW moment, such as when students start to understand a matter that is previously difficult to understand or when a lecturer starts to notice an important matter for students that is previously unnoticed, it is a discussion of tolerance. It was difficult to explain this issue to Pharmacy students, but they started to understand this issue when there was a student from the class of 2019 who was a non-Muslim. This fact was then documented in the form of a YouTube video which was awarded the second rank in the Competition for General University Students held by the Ministry of Religious Affairs of the Republic of Indonesia. The video can be accessed at Madjowa, P. M. T. (2019).

Some of the advantages offered by the seven jump PBL model are: student engagement is high during the discussion, students have a higher teamwork motivation, the learning atmosphere is more fun, and students are willing to make more efforts to find references to enrich their insights. On the other hand, the disadvantages of the seven jump PBL are: it is difficult to arrange the schedule because this learning model involves two different study programs, and it takes longer time and more energy to conduct a learning process using this method.

CONCLUSION

The contemporary problems of society are not the responsibility of a particular field of science but all fields of science. The Seven Jump PBL method has been proven to be optimal in correlating the contemporary problems of society to the field of science and integrating Islam into science and health. PBL is also useful to optimize students' ability to work together for self-development and to make contributions when a part of teamwork.

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DECLARATION OF CONFLICTING INTERESTS

The author declared no potential conflicts of interest.

REFERENCES

- Alia, N. N., Antasya, N. A., Aireen, N. E., Amy, N. N., & Malthane, B. R. (2022). Students' perceptions of Zoom Video conferencing platform during the Covid-19 Pandemic: A Case of Malaysian University. *Asia Pacific Journal of Management and Education*, 5(1), 51–64. doi: 10.32535/apjme.v4i3.1427
- Antepohl, W., & Herzig, S. (1999). Problem-based learning versus lecture-based learning in a course of basic pharmacology: A controlled, randomized study. *Medical Education*, 33(2), 106–113. doi: 10.1046/j.1365-2923.1999.00289.x
- Sandaria, G. F., & Purnamasari, C. B. (2021). The relationship of scenario quality with the effectiveness of Seven Jumps Problem-Based learning discussion on medical students of Mulawarman University. *Jurnal Ilmu Kesehatan*, 9(2), 137-141.
- Fozeli, A. D., Sani, N. A., Mustafa, A. S., Khalid, N. A., & Chawla, P. (2022). Students' satisfaction towards the use of e-learning during the Global Pandemic. *Asia Pacific Journal of Management and Education*, 5(1), 34–50. doi: 10.32535/apjme.v4i3.1426
- Kee, D. M. H., Fozeli, A. D., Sani, N. A., Mustafa, A. S., Khalid, N. A., Chawla, P., & Ganatra, V. (2022). Students' satisfaction towards the use of e-learning during the global pandemic. *Asia Pacific Journal of Management and Education*, 5(1), 34–50. Doi: 10.32535/apjme.v4i3.1426
- Kuron, Q., Sumual, S. D. M., & Tuerah, R. M. S. (2022). Classroom management in improving the learning outcomes: A multi-site study in Bhayangkari Kindergarten and Tondano Bethlehem Kindergarten. *Asia Pacific Journal of Management and Education*, 5(1), 1–10. doi: 10.32535/apjme.v4i3.1423
- Madjowa, P. M. T. (2019, November 20). Pengalamanku sebagai minoritas [Video file]. Retrieved from <https://youtu.be/pdWsh40yaz8>
- Mui, H. K., Yyadav, S., Hui, J. N., Rajogova, N. A., Noor, N. N. S. binti M., & Sasitharan, N. A. V. (2022). Acculturative stress among international students: A case of Malaysian Universities. *Asia Pacific Journal of Management and Education*, 5(1), 34–50. doi: 10.32535/apjme.v4i3.1425
- Newman, M. J. (2005). Problem-based learning: An introduction and overview of the key features of the approach. *Journal of Veterinary Medical Education*, 32(1), 12–20. doi: 10.3138/jvme.32.1.12
- Tan, O-S. (2003). Problem-based learning innovation. Retrieved from <http://dSPACE.vnbrims.org:13000/jspui/bitstream/123456789/4228/1/Problem-based%20Learning%20Innovation%20Using%20problems%20to%20power%20learning%20in%20the%2021st%20century.pdf>
- Pusung, F. N., Ratu, D. M., & Rotty, V. N. J. (2020). Improving Speaking ability through student role playing methods Class B Kindergarten Irene Tondano. *Asia Pacific Journal of Management and Education*, 3(3), 20–24. doi: 10.32535/apjme.v3i3.963
- Putra, H. D., & Purwasih, R. (2015). Meningkatkan prestasi belajar dan keaktifan mahasiswa melalui project based learning. *Jurnal Ilmiah P2M STKIP Siliwangi*, 2(2), 128-136. doi: 10.22460/p2m.v2i2p128-136.156
- Sapi'il, I. (2019). SD Muh Metro Gelar Workshop HOTS dan PISA. *Suara Muhammadiyah*, 104(2), 64.
- Sophan, M. K., Arif, M., Hendrawan, Y. F., & Mardiyah, I. R. (2018). Development of "Introduction To Networking" learning materials for Class XI TKJ in SMKN 1 Kamal using Unity 3D. *Journal of International Conference Proceedings*, 1(1), 13–19. doi: 10.32535/jicp.v1i1.220
- Sukestiyarno, Y. L., & Hartutik. (2021). Learning effectiveness with seven jump method assisted with e-module on statistics problem solving. *Journal of Physics: Conference Series*, 1918(4), 042125. doi: 10.1088/1742-6596/1918/4/042125

- Togas, P. V., Naharia, O., Manggopa, H., Rompas, P. D. T., & Oroh, R. (2021). Development of web-based digital system learning media. *Asia Pacific Journal of Management and Education*, 4(3), 22–34. doi: 10.32535/apjme.v4i3.1263
- Universitas Islam Indonesia. (2016). Kurikulum Komprehensif Ulil Albab. Retrieved from <https://dpa.uii.ac.id/wp-content/uploads/2020/01/Dokumen-Akademik-Kurikulum-Ulil-Albab.pdf>
- Wood, D. F. (2003). Problem based learning. *BMJ (Clinical research ed.)*, 326(7384), 328–330. doi: 10.1136/bmj.326.7384.328