International Journal of Instruction e-ISSN: 1308-1470 • www.e-iji.net

Article submission code: 20200427160901



April 2021 • Vol.14, No.2 p-ISSN: 1694-609X pp. 421-442

Received: 27/04/2020 Revision: 24/09/2020 Accepted: 16/10/2020 OnlineFirst: 26/01/2021

# Problem-Based Learning Remodelling Using Islamic Values Integration and Sociological Research in Madrasas

### Isa Anshori

The State Islamic University Sunan Ampel, Surabaya, Indonesia, isaanshori67@gmail.com

This study aims to find improvements in the quality of the process and learning outcomes of sociology through problem-based learning modeling integrated with Islamic values and empirical research in madrasas. This study uses a class action research development approach. The research subjects were 32 students of class XII in an Islamic school. Each cycle involves planning, implementing actions, observing and reflecting. In the cycle 1, students use the problem-solving approach, while in the cycle 2 they use a modified problem-solving approach. The action modification of problem-based learning is implemented by integrating Islamic values and empirical research activities. Based on the results of observations, interviews, and tests, the results of the study prove that the quality of the sociology learning process increases, as well as student learning outcomes from the affective, cognitive, and psychomotor aspects. Integrating Islamic values increases the spirit or motivation of students in learning, while empirical research provides opportunities for students to solve learning problems with a scientific approach. Data collection activities during empirical research encourage students to think more critically and thoroughly. Therefore, this study concludes that problem-based learning cannot always be effectively applied, but there needs to be modified under the objectives and content of the learning material.

Keywords: problem-based learning, Islamic values and research, the quality of sociology learning, sociological research, learning

# INTRODUCTION

Sociology is a topic of uneasy to learn because it involves complex social problems, primarily related to social change and its impact, globalization and local community change. The problem can be studied from various dimensions, which of course the results are not always the same. The discussion also requires multiple sources, not only from books but also from various electronic media, even direct observations of the reality of life. In-depth studies like this are impossible if there is no enthusiasm for learning.

**Citation:** Anshori, I. (2021). Problem-Based Learning Remodelling Using Islamic Values Integration and Sociological Research in Madrasas. *International Journal of Instruction*, 14(2), 421-442. https://doi.org/10.29333/iji.2021.14224a

In this case, the spirit of learning can be grown with the fundamental values of Islamic teachings, namely learning is worship. Education will have the value of prayer if intentionally sincere because of Allah SWT. The more sincere students in learning, the higher the reward value. Without these values of worship, it is unlikely that students will be enthusiastic in learning, which of course is also less than optimal learning achievement.

The facts show that many students have difficulty learning sociology, not only in public schools but also in Islamic schools. Sociology learning outcomes (which are one indicator of the quality of sociology learning) are irrelevant to the institution's ranking. This can be proven from the achievements of one of the best madrassas in East Java, boarding, and making full use of the 2013 curriculum (Anshori, 2017). However, not all subjects were given the best results, especially for sociology subjects.

This problem occurs because sociology learners still use conventional models, so learning is not active, and learning outcomes do not improve. The 2013 curriculum (which was refined into the 2017 curriculum) mandates more comprehensive, contextual, and characterized learning. The focus of learning is on student activity (student center), while the teacher is tasked with facilitating, guiding, directing and evaluating the learning process and outcomes. The activeness of these students is expected to develop their potential to the maximum. Learning aims to prepare students to continue their studies or have specific professional competencies or solve various problems in everyday life so that they will survive. Consequently, all sociology teaching and learning processes must optimize mental, spiritual and social processes, not just listening and taking notes, but requires the ability to think deeply.

This effort must be made because the main objective of learning sociology in madrasas is to foster and develop students' abilities and skills in studying and exploring various kinds of social phenomena, so students have a spiritually and socially wise and wise attitude. The sociology learning material covers multiple basic concepts, approaches, methods, and analysis techniques in studying social phenomena and their problems in the family, school, and community, as well as various aspects of life.

Given the vast scope of sociology learning, the material must be studied comprehensively and deeply, taking place in harmony so that students' reasoning abilities, skills, and attitudes can develop ideally. One indication of successful sociology learning is an increase in learning outcomes that take place continuously. However, the reality shows, there are still results of learning sociology madrasa students have not increased, even still low.

The problem of learning outcomes of sociology is still low in this madrasa happening to students of class XII IPS 2. Unlike the other courses of XII IPS, the results of research in the odd semester of 2016/2017 from mid-July to December 2016 in four classes XII IPS (ie XII IPS 1, 2,3, and 4), class XII IPS 2. In order to get more reliable result, the data was the collected from odd semester in 2019/2020 academic year. Several problems occurred in low sociological learning outcomes, namely: 1) Students like to learn individually, group learning I have created, but often prefer to learn individually in

the group, so that the adhesive power of understanding is still low. 2) interest in reading books is low, students prefer to access the internet, it is seen when asked students prefer access internet using their phones rather than reading their books. 3) The sociology teacher acknowledges that he also believes more in students being able to study independently without teacher control. As a result, when students are given the task to study books in groups the teacher does not look in focus whether when students gather to read and discuss in depth or they just seem to read in groups. 4) Students also find it difficult to leave old ways of learning (memorizing) rather than understanding, consequently it is difficult to understand sociology learning material. 5) In learning sociology, students prefer to see the film together as compared to learning to read books to understand sociology together. As a result their abilities related to sociology theories are very minimal, so teachers must explain. 6) The answer to all of this is when the KD Test 1 Material was Social Change and Its Impact in the odd semester of 2016/2017, the value of the cognitive (cognitive) aspect was only 25% (8 students) which successfully completed learning, the rest 75% (24 students) did not complete.

Meanwhile, the average value of cognitive aspects is only 68.91, the highest score is 85, and the lowest is 45. Even though viewed from the value of Skills, 100% (32) of students complete, with an average score of 80.63, the highest is 85 and the lowest is 80. Likewise, when viewed from the value of spiritual attitudes and social attitudes, 100% (32) students have the value of the category of Very Good (A). The minimum completeness criteria (KKM) in sociology subjects is 80. Why did it happen that way? What are actions immediately taken to improve the learning outcomes?

The facts above show the results of student sociology learning in the aspect of knowledge (cognitive) class XII IPS 2 is still low. Alternative solutions that can be done is to change the learning model by applying a problem-based learning model or Problem-Based Learning (PBL), which is more focused on student activity (student center). PBL is a characteristic focus on real life problems and emphasizes the activity of inquiry in solving problems (Arends, 2008). In this way, students are expected to develop their thinking skills, so that information will come from various learning model divides students into groups with different problems in each of these groups. The division of groups is carried out heterogeneously so that it motivates students to interact with other students even if they are not the peer group. Participation increases and they are willing to help one another and work together, discuss actively solving problems that are obtained.

From previous research results, there are differences in research findings, related to the application of problem-based learning models in improving learning outcomes. As the research of Mas'ulah et al (2016), Yusmanidar et al (2017), Kresnandi and Abdusamad (2013), Handika and Wangid (2013), and Aliyah (2018) found improvements in science learning outcomes. Research from Sari and Rahadi (2014), Fitrah (2017), Sumartini (2018), Choridah (2013), Ismaimuza (2011), Fachrurrazi (2011), Jumaisyaroh et al (2015), Rahmawati and Suryanto (2014), Noviantii et al (2020) ), Rizqi and Arini, (2020) found an increase in mathematics learning outcomes. Research Fauziah et al

(2017) found an increase in electrical learning outcomes, and research by Utami (2013) proved that problem-based learning models can improve sociological learning outcomes.

However Li et al (2019) of his research found no significant difference in results between Problem Base Learning with traditional methods, there were differences in experimental designs, methods and duration of interventions. According to Kleczek et al (2020), the more the teaching process is focused (based on content, time and participants) on the task to be completed, the greater the effect. Coze (2019) extracts a normative sociological safety model. Vaisey and Valentino (2018) advocate a strategic assimilation approach in learning sociology. While Jedynak and Kinal (2014) the results of their research emphasize the importance of the integration of ethics and technology in the curriculum, so that learning can produce graduates who are ready to use. Supriyadi et al (2019) conducted an assessment by developing a character-based learning model.

Various research results prove that the application of problem-based learning models can not always improve learning outcomes, nor has it revealed the quality of the learning process, so it needs to be re-examined by modification by the teacher. The novelty of this research is to do remodeling, problem based learning modeling by integrating Islamic values and empirical research, as well as being associated with improving the quality of the process and learning outcomes of sociology.

Of course the quality of learning is determined by the motivation of students in learning and the conditions created by the teacher's condition. Student learning motivation is determined by the quality of student personality, in this case the inculcation of spiritual and social values of students greatly determines student personality.

The same thing happens to habituate students to study various research results, even habituating students to conduct research directly to the community can foster students to be more enthusiastic in solving various problems objectively and comprehensively. This means, the application of existing problem-based learning models will be more effective in improving the quality of the process and learning outcomes if it is modified according to the objectives and learning material. The purpose of this study is to find improvements in the quality of the processes and learning outcomes of sociology through problem-based learning modeling integrated with Islamic values and empirical research in madrasas.

## METHOD

### **Research Design**

This study uses a Classroom Action Research development approach, systematic information gathering, designed to produce change (Basrowi, 2008). CAR has a great contribution to the development of Education management, especially resulting in practical learning and actionable knowledge (Raelin & Coghlan, 2006). Its characteristics are that this is done by the teacher himself, departing from factual practice problems, there are actions that need to be taken to improve the teaching-learning process in the classroom, and are collaborative in nature (Kasbolah, 2001). In

this case, the researchers together with the sociology teacher take assessment and action to improve the quality of the learning process and sociology learning outcomes.

The quality of learning is seen in terms of process and results. The learning process is called quality if all or most students are actively involved physically, mentally and socially in the learning process, namely (1) student discipline in learning, (2) enthusiastic about implementing learning, (3) concentration in learning, (4) willing to do cooperation in groups, (5) togetherness in transferring information, (6) togetherness in discussions, (7) actively asking questions, (8) actively answering teachers 'and fellow students' questions, (9) accuracy in giving answers, (10) ability in providing explanations, (11) ability to provide solutions, (12) ability to make summaries, (13) ability to make conclusions. While learning outcomes are called quality if all or most of the students show the value of attitudes, knowledge, and skills are at least sufficient. The attitude value is obtained from the observations during the students carry out the process of teaching students, the value of knowledge is derived from the results of the pre-test, post-test cycle 1 and post-test cycle 2, while the value of skills is obtained from the performance values and products in the form of papers and videos. In cycle 1, the product scores were obtained from the documents, while cycle 2 was obtained from the papers and videos made by students.

The research subjects were determined purposively, of 32 students, consisting of 28 women and four men in class XII IPS2 MAN 1 Lamongan. This student was chosen because student learning outcomes were still low compared to other classes (IPS1, 3 and 4). Conducted for six months with a four-stage process as shown in the following figure 1.



Figure 1

Procedure of Class Action Research Development

This Classroom Action Research Development was carried out through two cycles with the scheme as figure 2.



Research Core Activity Scheme

The results of observations and reflections on sociology learning show that there are various problems in class XII IPS 2. The focus of the problem is the learning outcomes of Sociology aspects of knowledge (cognitive) is low, the allegations occur temporarily

because the learning process is not yet quality, learning has not been centered on student activity, still teacher-centered. For this reason, it takes a choice of learning models that are more oriented to student activity, in order to improve student learning outcomes, namely problem-based learning models, or PBL. PBL is one of the many learning models that can improve student learning outcomes because they are given the surrounding problems to be solved, through group discussions.

In cycle 1, the PBL Model is applied as is to determine the effectiveness of the learning model. In the cycle 2 the PBL Model was modified while still making the problem a study to be solved through discussion. Modifications to this model are carried out to determine whether there are or differences ineffectiveness in achieving learning objectives. In applying the modified PBL model, before discussing to solve the problem, the teacher gives the spirit of Islamic values to the students, namely the value of worship, so that students are truly resolving the problem. This is followed by encouragement to students to search for and study the Quran and Hadith as a source of learning, search and study various research results on the internet, even various references and mass media, and then conduct research directly to the community.

The results of studies from various sources are used as a basis for students to discussion groups in solving problems, making papers and videos, which are then presented in discussions between groups in class. By solving the problems that are around them, with real evidence, it makes it easier for students to understand Sociology learning material so that the quality of the learning process and learning outcomes of sociology can be improved. It can be concluded that the modification of problem-based learning that integrates Islamic values and research can improve the quality of the process and learning outcomes of Sociology for students of class XII IPS 2.

## **Data Collection and Analysis**

There are two types of data collected, namely quantitative and qualitative. The first type is said to be obtained from the test results, namely pre-test (pre-cycle) and post-test (cycles 1 and 2) on aspects of knowledge, and observations of the quality of learning during cycles 1 and 2 related aspects of spiritual attitudes, social attitudes, and skills that are quantitative. Meanwhile, qualitative data were obtained from observations of spiritual attitudes, social attitudes, and students' behavior and skills when students took information from the Ouran, Hadith, the internet and various sources, analyzed the information obtained, discussed it among group friends, compiled reports in the form of writing and video, and present it in a class discussion forum. During the observation, all events are recorded in the observation sheet, related to students' attitudes and behavior, and their ability in performance, are described and categorized as Less (D) with a value of 79 and below, Fair (C) with a value of 80, Good (B) with a value of 81-90, and Very Good (A) with a value of 91-100. For the aspect of skills, qualitative scores are quantitative, obtained from the results of performance and product assessments resulting from student work in the form of papers and videos, related to systematic discussion, completeness of references, supporting data, depth of refinement, and the ability to present animation.

Qualitative data is data related to quality in the form of information about the learning process, activities carried out by students and teachers in the learning process, sourced from 1) the events that take place the process or learning activities of sociology teaching, 2) the informants, sociology teacher partners and some class XII IPS 2 MAN 1 Lamongan students, 3) Documents and the internet. Data collection techniques using observation, interviews, documentation, and tests.

Data that has been collected is then analyzed through three stages, namely: a. data reduction, the activity takes place continuously throughout the study, also when the data has been collected; b. presentation of data, i.e. the data obtained is presented in written form or words, figures, tables and graphs; c. drawing conclusions, namely making final conclusions. The conclusions that have been made are then discussed with the sociology teacher concerned, and the partner teacher regarding the final results obtained to determine the next course of action.

To check the validity of the research data, researchers used data triangulation (ie source triangulation). "Triangulation of data sources is done by using different types of data sources to obtain similar data. The purpose of this triangulation is to check the truth of this data by comparing data obtained from other sources, at various phases of research, at different times, and often using different techniques, for example by observation, interview, and document techniques "(Nasution, 1996). In this case, the test results confirm the aspects that have been obtained then confirmed back to each student. This is also done on observations related to aspects of spiritual attitudes and social. As well as the results of performance and product assessments on aspects of skills. Triangulation like this is done at the end of each cycle.

### FINDINGS

## The Quality of Sociology Learning Process

The findings of observations of the teaching and learning process in cycle 1 by applying the Problem-Based Learning (PBL) learning model shows the concentration and frequency of student activities. In stage 1, when the teacher gives orientation about the problem to be solved, the student looks concentrated, paying attention to the teacher's explanation and commands. The activeness of students increases in stage 2, when the teacher organizes students to research. Likewise in stage 3, when the teacher helps self and group investigations. Student activeness is also seen in stage 4, when developing and presenting study results. Even in stage 5, when analyzing and evaluating problemsolving processes, student concentration is also seen. This condition proves that the quality of learning in cycle 1 is better than before the problem-based learning model was applied. Students only listen to the teacher's explanation and only answer if there is an unclear explanation. It was only a few students who actively asked questions.

In cycle 1, students are assigned by the teacher to analyze social changes and their effects in people's lives, through the study of sociology books. This process is then continued by conducting studies, observations, and discussions about social changes and their consequences in class discussions.

With the use of problem-based learning models like this, students' discipline and activeness in learning have been seen. Even so, the researchers considered that students were still not comprehensive in solving problems. This can be seen from the data submitted and the arguments presented in writing or verbally in the discussion forum. To that end, researchers seek to modify the problem learning model by applying Islamic values as a spirit of learning and learning resources, utilizing research results sourced from the internet, and various references as learning resources, and encouraging students to conduct research directly into the community with the hope that the quality of sociology learning is increasing.

Such wishes are manifested in the cycle 2. Students are instructed to describe various social problems caused by social change in the midst of the effects of globalization. The process begins with the study of the Quran and the Hadith, the results of research sourced from the internet, various books, mass media, magazines, journals, TV systems, then conduct research directly to the public. In addition, students are also assigned to conduct studies, observations, and discussions about various social problems caused by social change in the midst of the effects of globalization. By studying the Quran and the Hadith, the results of research sourced from the internet, various books, mass media, magazines, journals, TV systems, then conducting research directly to the community, students are increasingly focused and excited in solving various problems found, the atmosphere group discussion is more lively, their togetherness in completing various tasks is also visible. With this process, students can compile reports in the form of papers, ppt, and videos more comprehensively and in-depth, and can present them in class discussion forums perfectly and with a variety of accountable arguments.

### Table 1

PBL steps and the quality of the sociology learning process (Findings of the assessment of students attitudes and behavior through observation)

Ste	ps	Teacher and Students' Activity	Students' Attitude and Behavio in Cycle 1	Students' Attitude and Behavio in Cycle 2
1	Orient students towards the problem	"The teacher explains the learning objectives and facilities or logistics that are needed.	Concentrated students pay attention to the teacher's explanation. Looks passionate in solving problems together.	Students increasingly pay attention to the teacher's explanation. Looks more enthusiastic in solving problems together.
2	Organizing students to learn	The teacher motivates students to engage in real or selected problem-solving activities. "	Students appear to be trying to solve various problems studied by dividing various tasks into groups.	Students seem to be increasingly trying to solve various problems studied by dividing various tasks into groups.
3	Guide individual and group investigations	"The teacher helps students define and organize learning tasks related to problems that have been oriented in the previous stage."	Students seem to be actively trying to gather information from various book sources and discuss it in groups.	Students seem to be more actively trying to gather information from various sources, especially the Quran and Hadith, research results from the internet, reading books, magazines, newspapers, journals, tv, followed by research into the field, then discussing it in groups.
4	Develop and present the work	"The teacher encourages students to gather appropriate information and carry out experiments to get the clarity needed to solve the problem."	Students seem to be actively discussing to answer questions based on the results of the study of the source of the book, then continue to make reports in the form of papers and ppt, then present and discuss them in discussions between groups in class	Students increasingly actively discuss questions to answer questions based on the study of sources from the Quran and Hadith, research results, books, magazines, newspapers, journals, V and direct observation to the field, then continue to make reports in the form of papers and ppt, then present and discuss them in discussions between groups in the class
5	Analyze and evaluate the problem- solving process	"The teacher helps students to share assignments and plan or prepare appropriate work as a result of problem-solving in the form of reports, videos, or models"	Students pay attention to teacher input and perfect solutions to problems that have been made in writing.	Students increasingly pay attention to teacher input and perfect solutions to problems that have been made in writing.

The findings of the modification of the problem-based learning model by integrating Islamic values and research indicate an increase in the quality of the sociology learning process, seen in student discipline in learning, enthusiasm in learning, concentration in learning, willingness to collaborate in groups, activeness in asking questions, activeness

in answering questions teachers and fellow students, the accuracy of giving answers, the ability to provide explanations, the ability to provide solutions, the ability to make summaries, the ability to make conclusions, the togetherness of students in transferring information, as well as the completeness of the data and information presented in the report, as well as the integrity and into thinking in completing various the problem. This condition can be seen when students transfer information, discuss results with groups, prepare reports in the form of papers, ppt and videos, and present in class discussions. Students can not only present reports in writing but also can present various pictures and videos of their research findings.

### **Students' Learning Findings Enhancement**

### Pre-action Description

From the findings of the KD 1 test (pre-test) of the sociology learning process that uses the lecture and question and answer method for 32 students in class XII IPS2, the highest grades of 84, 80, and 75 were achieved respectively by 4 students (12.5%), then 3 students (9.4%) got 70, 9 students (28.2%) got 65, 5 students (15.6%) got 60, and each 1 student (3.1%) got grades 55, 50, and lowest grades 45. The average value of students is 68.91.

The data is a preliminary condition, in the form of the KD Test value of 1 material "Social Change and Impacts" in the odd semester of class XII IPS 2 which shows that it is still low. Based on the initial conditions of the learning outcomes, with KKM 80, only 8 or 25% of students who finished studying, while those who did not complete reached 24 students, namely 75%. This indicates that the use of lecture methods that are not varied is not effective, considering that children have varied typologies. More details can be seen in Table 2

Table 2

Completion of classiool	Completion of classicolin pre-action learning midnigs students in classes XII II 5 2				
Completion	Number of Students	Percentage (%)			
Complete	8	25			
Incomplete	24	75			
Total	32	100			
Class Grade Average	68.91				

Completion of classroom pre-action learning findings students in classes XII IPS 2

These conditions are different when seen in the value of the Skills aspect, where each student is instructed to make an animation of social change and its impact, student grades are very good, an average of 80.63, ie 4 students (12.5%) score 85 and 28 students (87.5%) scored 80. This means that with KKM 80 overall students (32) 100% complete in learning.

Even when viewed from the affective aspects, namely spiritual and social attitudes, all students (100%) belong to the Very Good (A) category. By paying attention to these data, the main problem is why in the cognitive aspects of students is only 25% (8 out of 32 students) and even then the highest score is only 85 and the lowest is 45 with an average student score of only 68.91? Even though the skill aspect is 100% complete,

even the spiritual and social attitudes are all (100%) in the Very Good (A) category. This data also proves that there is not always a correlation between the value of spiritual attitudes and social attitudes (affective aspects) of students and the value of skills (psychomotor aspects) and the value of knowledge (cognitive aspects) of students. My provisional conjecture is the low completeness of students in this cognitive aspect because teachers in teaching still use learning models that are less encouraging students to be active. This is what makes me moved to take action, namely applying the Problem Based Learning (PBL) learning model, so that students' knowledge becomes more complete, so that the value of cognitive aspects increases.

### Description of Cycle 1 and Cycle 2 Actions

An increase in student sociology learning outcomes in the aspect of knowledge, after applying the Problem Based Learning (PBL) learning model in class XII IPS 2. The increase occurred in each student. The highest score can reach 88 students 1 (3.1%), then 87 by 4 students (12.5%), 85 students 1 score (3.1%), 82 by 2 students (6.3%) ), grades 80 by 4 students (12.5%), grades 78 by 1 student (3.1%), grades 75 by 9 students (28.1%), grades 70 by 7 students (21.9%), a score of 65 by 2 students (6.3%) and the lowest grade of 60 was achieved by 1 student (3.1%). The average value of 76.19 with 37.5% learning completeness (12 students) and 62.5% incomplete (20 students).

In cycle 1, many students have not yet finished learning. Of the 32 students who completed only 12 students (37.5%), previously only 8 students (25%). It means that only 4 students have finished (12.5%). However, when viewed from the students' scores, they experienced an increase, at first the average value of only 68.91 rose to an average of 76.19. The lowest initial value was only 45, rising to 60 in cycle 1. The highest initial value was only 85 rising to 88 in cycle 1.

The main weakness in the first cycle, the problems raised related to "social change and its impact" is only limited to the study of literature, students in groups study books about social change and the impact of reference books that are already owned, making it less interesting for students to study. Students have not yet explored the various real problems that occur in people's lives and use various sources (mass media, electronics, internet, etc.).

Therefore, in the second cycle PBL is given a modification that is students are given a religious spirit to learn and solve problems in earnest (worship value), show verses of the Quran and Hadith related to the problem being studied, enhanced by assigning students to study the verses Al Quran and Hadith verses, looking for sources from books, magazines, newspapers, journals, TV, and internet, then do research directly to the public. Students as a group try to directly observe the life of the community, related to Globalization and Change in Local Communities (KD2). Students not only make written reports, but also document these events, analyze, and present in the form of video shows in the era of globalization and changes in local communities.

Learning outcomes in the second cycle experienced a very significant increase, especially in the aspect of knowledge. It can be proven that the results of the KD 2 test by using a written test on November 1, 2016, the highest student score can reach 90

achieved by 5 students (15.6%), then 85 scores achieved by 7 students (21.9%), 83 by 1 student (3.1%), grades 82 by 9 students (28.1%), grades 81 by 7 students (21.9%) and lowest grade 80 by 3 students (9.4%). The average value of 83.53 and 100% of students complete in learning (32 students).

This proves, that the modification of problem based learning (PBL) by inculcating spiritual values of worship, studying the Quran and Hadith as well as utilizing various learning resources in the form of books, magazines, journals, newspapers, TV, internet and conducting research directly in people's lives (observing, interviewing and documenting) apparently encourages the acceleration of learning outcomes of students of class XII IPS 2, 100% of students complete in learning, even as a whole has increased. The average student score rose to 83.5 (in cycle 1 only 77.19), the lowest value was 80 (previously 60) and the highest was 90 (the previous cycle 88). More clearly the comparison can be seen in Table 3.

Table 3

Cognitive Aspects of Pre-Cycle, Cycle 1, and Cycle 2 Class XII IPS 2

Grades	Value			Increasing Cycle 1	Description	
orades	Pre-Cycle	Cycle 1	Cycle 2	To Cycle 2	=	
Highest	85	88	90	2	Increasing	
Lowest	45	60	80	20	Increasing	
Average	68.91	76.19	83.53	7.34	Increasing	
Completion (%)	8 (25%)	12 (37.5%)	32 (100)	62.5%	Increasing	

Table 3 shows that there was an increase in student grades from pre-action, to cycle 1 and cycle 2 actions. From pre-action to cycle 1 action students completeness increased by 8,5% (25% to 37.5%). In the second cycle of completeness, the students increased to 62% (from 37.5% in cycle 1 to 100% in cycle 2). Likewise, when viewed from the average value of students, in pre-action only 68.91 to 76.19 in cycle 1, even 83.53 in cycle 2. The increase also appears at the lowest value; initially there was a value of 45 in pre-action, to 60 at cycle 1 and 80 actions in cycle 2. The same increase is seen in the highest value, initially only 85, to 88 in cycle 1 and 90 in cycle 2. More details can be seen in Table 4.

Table 4

Total cognitive aspect learning findings of class XII IPS 2

Learning Result	Action			Description
Learning Result	Pre- Cycle	Cycle 1	Cycle 2	Description
Completion	25%	37.5%	100%	Increasing
Highest Score	85	88	90	Increasing
Lowest Score	45	60	80	Increasing
Average	68.91	76.19	83.53	Increasing

Even though the overall completeness of the learning outcomes of the cognitive domain and the average value of class XII IPS 2 has increased, but when viewed from the cognitive domain of each student's learning outcomes, the increase is not the same in

each cycle. The highest increase occurred in students with the lowest scores of 50 preactions, to 60 in cycle 1 and 80 in cycle 2. 50 is the actual student learning outcomes where the teacher still uses lecture-based learning models, then changed using learningbased learning models problems, the teacher proposes various social problems which then students are instructed to look for answers through book review and continued with discussion, after an assessment, the learning outcomes have increased from 50 to 60.

Findings like this certainly have not yet reached the KKM that has been determined, so the teacher modifies problem-based learning by using Islamic values as a spirit of learning, students are motivated to enthusiasm for learning by showing various verses of the Quran and Hadith about the importance of learning and the reward to be gained. "Allah will elevate the higher degrees of those who believe and have knowledge." In this way the enthusiasm of student learning is increasing, especially with the teacher showing various verses of the Quran and Hadith related to social and natural phenomena to be examined, making students more inspired to solve various problems followed by direct research to the community. The results of each student's study are presented in a discussion forum. With the modification of the problem based learning model through the integration of Islamic values, the verses of the Quran and the Hadith as a source of learning and followed up with direct research into the community by each student, which is then reviewed through a class discussion forum, makes student learning outcomes increase, ie from 60 to 80.

The increase in learning outcomes is due to the adoption of a more appropriate approach and learning model, and the motivation of students who are left behind is motivated to catch up. In addition, there is intensive interaction between students, both students in groups and outside groups, so that the learning outcomes are equally improved. More details can be seen in figure 3.

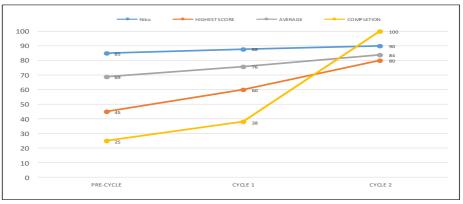


Figure 3

Sociology learning result comparison in cognitive aspect on Pre-cycle, cycle 1, and cycle 2 Class XII IPS2

Judging from the value of skills, 100% of students are also complete in learning, all students experience an increase when action is taken in cycle 1, but not all experience an increase when action is taken in the cycle 1, and some even experience a decrease. Even so, judging from the highest and average values, each cycle has increased (except the lowest value in the pre-action to the cycle 1 action remains). This happens considering that the assessment of skills in the second cycle is done more comprehensively, the value of students is not only seen from the performance and skills in making papers, but also in making videos and their products. At the same time showing the students' skills in making products are not the same, especially in the form of videos. More details can be seen in Table 5.

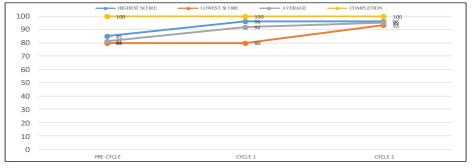
#### Table 5

Values of the Skills of KD 1 & 2 Class XII IPS 2 Test (Practices, Cycle 1, and Cycle 2)

	Practice	Value		Improving Cycle 1	Description
	1140000	Value Cycle 1	Value Cycle 2	To Cycle 2	Desemption
Highest	85	96	96	0	Steady
Lowest	80	80	93	12	Increase
Average	80.63	92.34	94.53	2.19	Increase
Total Due	100%	100%	100%	0%	Steady
Increasing	Increasing				12 (37.5%)
Cycle 1	Steady				7 (21.88%)
To 2	Decreasing	5			13 (40.62%)

An interesting thing to observe is that the scores on the aspects of students' skills varied, 37,5% (12) experienced an increase in learning outcomes after-action cycle 1 and cycle 2, 21.88% (7) remained, in the sense that there was no increase, and 40.62% (13 students) experienced a decline. But the decline in student scores was not so significant, a maximum of only -3 and even then only three students, the rest only minus 2 (4 students) and 1 (6 students).

In fact, students who experienced an increase in grades showed a very significant increase, namely achieving an increase in grades 16 (2 students), addition of 13 (1 student), 11 (1 student), 9 (1 student), 8 (3 students), and 1 (4 students). More clearly the comparison of learning outcomes in aspects of skills in pre-cycle, cycle 1 and cycle 2 can be seen in figure 4.



#### Figure 4

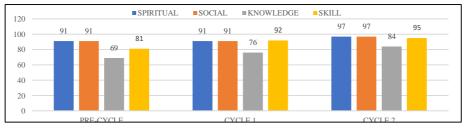
Sociology Learning Result Comparison in Cognitive Aspect on pre-cycle, cycle 1, and cycle 2 of class XII IPS2

When seen as a whole, the comparison of values which are the results of student learning, in the pre-action with the action cycle 1 and cycle 2, the highest increase in aspects of knowledge, then aspects of skills, while in the aspect of attitude (religious and social attitude) did not experience a significant increase. There is no increase in the value of the affective aspects due to the value of spiritual and social attitudes before the action has reached the highest category, namely Very Good (A). Besides that, the creation of spiritual and social culture in madrasas has become a common awareness of all components of madrasas. More clearly, this can be seen in Table 6 and Figure 5.

### Table 6

Comparison of religious attitudes, social attitudes, knowledge, and Skills of KD 1 and 2 Class XII IPSs 2 Tests (Pre-Cycle, Cycle 1, and Cycle 2)

	Pre-Cycle Grade			
	Religious	Social	Knowledge	Skill
Highest	92	92	85	85
Lowest	91	91	45	80
Average	91	91	69	81
Total Due (%)	A (100%)	A (100%)	8 (25%)	32 (100%)
	Cycle 1 Grade			
	Religious	Social	Knowledge	Skill
Highest	92	94	88	96
Lowest	91	91	60	80
Average	91	91	76	92
Total Due (%)	A (100%)	A (100%)	12 (38%)	32 (100%)
	Cycle 2 Grade			
	Religious	Social	Knowledge	Skill
Highest	100	100	90	96
Lowest	94	95	80	93
Average	97	97	84	95
Total Due (%)	A (100%)	A (100%)	32 (100%)	32 (100%)



#### Figure 5

Sociology learning result average in spiritual, social, knowledge, and skill aspect in precycle, cycle 1, and cycle 2.

For the aspect of knowledge, all students experienced an increase in grades, even though the improvement was varied. As for the aspect of skills, all students experienced an increase in cycle 1, but not all experienced an increase in cycle 2. There were 12 students (37.54%) who experienced an increase, 7 students (21.88%) did not experience an increase, and 13 students (40.6%) actually experienced a decline, but not so significant.

The difference in graphs obtained by students of class XII IPS 2 is influenced by teacher and student factors. Each student has different types and characteristics. Some are auditive, some are visual and some are kinesthetic. This difference results in differences in learning outcomes. Therefore, in carrying out learning, teachers must always do learning remodeling, along with student development, situations and conditions, and the demands of the times. The application of only one learning model cannot generalize the level of student learning ability. Teachers should also use other learning models that are more varied and innovative so that student learning outcomes are better.

## DISCUSSION

The explanation above shows that in sociology learning, the application of problembased learning models is not always effective in improving the quality of the process and learning outcomes so that it must be modified based on problems by integrating Islamic values and research. This research found, through problem-based learning remodeling by integrating Islamic values and research turned out to make sociology learning more effective, both in terms of the quality of the learning process and learning outcomes. The proof can be seen in the following table 7:

### Table 7

Sociology learning process quality

No	Learning Quality Process Indicators	Quality Which Can Be Seen / Showed On Cycle 1	Quality Which Can Be Seen / Showed On Cycle 2
1	Discipline of students	The majority of students attend	All students attend and can
	in learning	and complete the task on time	complete assignments on time
2	Enthusiastic about	The majority of students are	All students are enthusiastic in
	learning	enthusiastic in following and	following and implementing
		implementing learning	learning
3	Concentration in	The majority of students show	All students show a high
	learning,	good concentration of learning	concentration of learning
4	Willingness to do	All students showed a willingness	All students showed willingness to
	group collaboration	to do group collaboration	do group collaboration
5	The liveliness of	There are some students who	The majority of students actively
	asking	actively ask	ask
6	Activeness in	Only a few students are active in	The majority of students actively
	answering questions	answering teacher and fellow	answer questions from teachers and
	from teachers and	student questions	fellow students
	fellow students	stadent questions	
7	Accuracy in providing	Only a few students can get the	Most students can give answers
	answers	answers right	correctly
8	The ability to provide	Only a few students can	The majority of students can
0	explanations	demonstrate the ability to provide	demonstrate their ability to provide
	enpianations	explanations	explanations
9	The ability to provide	Only a few students can	All students can demonstrate the
	solutions,	demonstrate the ability to provide	ability to provide solutions
	solutions,	solutions.	ability to provide solutions
10	Ability to make	Most students are able to make a	All students are able to make a
10	summaries	summary	complete summary
11	The ability to make	The majority of students are able	All students are able to draw
	conclusions	to draw conclusions from the	conclusions from reading and
	conclusions	discussion	discussion results precisely
12	Togetherness of	The togetherness of students in	The togetherness of students in
	students in	transferring information looks	transferring information looks very
	transferring	good	good
	information	good	good
13	Completeness of data	Data and information presented in	The data and information presented
15	and information	the report are incomplete	in the report is very complete
		the report are incomplete	in the report is very complete
14	presented in the report	Cturdents and af an anatic 1	
14	Wholeness and depth	Students sense of cooperation and	Wholeness and thought in solving
	of thought in solving	solving various problems are still	various problems are very visible
	various problems	lacking	

If the fourteen indicators are examined further, the improvement in the quality of the learning process in cycle 2 will be very visible. This means that through the modification of problem-based learning integrated with Islamic values and in-depth research, the quality of the sociology learning process, students are motivated and enthusiastic in learning (Ramadhani et al, 2019), which of course also has implications for improving the quality of learning outcomes.

Student learning outcomes show a very significant increase in which from the aspect of initial knowledge only 38% are complete with the highest score of 88 and lowest 60, to

100% complete with the highest score of 90 and the lowest 80. In the aspect of skills the results show that students equally achieve 100% complete, but there is an increase in the lowest value of 80 to 93. In terms of quality, it is very apparent that students' ability to solve problems is not only able to think mathematically (Noviantii et al., 2020) and rationally, but also comprehensively, humanly. Communication that is built also is not only mathematical communication (Rizqi and Arini, 2020), but communication that is humane, educative, loves each other and loves, protects and enlightens. This proves that the increase in the quality of the learning process is highly correlated with student learning outcomes.

The high enthusiasm of learning in students not only arises because they are motivated to get high grades, but also because of the hope of getting a reward from Allah SWT. The formation of students' spiritual culture as a factor for learning success (Rusakova et al., 2017). This process raises the sincerity and sincerity of student learning in overcoming various life problems. They look for various sources of problems, then try to solve various problems. Sincerity and sincerity in learning become higher when students find the root of the problem through excavation and assessment of various research results obtained from the internet. In fact, they observe directly into social life.

Students' insights also become wider after they examine various learning resources, from journals, newspapers, TV, and others. Completeness of information obtained from various sources is the main capital for students to solve problems comprehensively and deeply. Their group discussions became more lively because they were eager to solve the problem seriously, each group seemed to compete to compile a complete report and modify it with more interesting ppt and video views.

The atmosphere of class discussion became more lively, as each group presented their best work. This is where they collide works, collide arguments, assess and complement each other. They can find out and realize the weaknesses and strengths of their respective works, as well as the work of other groups. They become complementary, help each other in achieving perfection so that they obtain a complete and deeper understanding of seeing and solving a problem. In other words, student learning outcomes become more perfect, both from the spiritual, social, knowledge and skills aspects.

The integration of Islamic values in learning is supported by research, the spiritual attitude of students grows, which then encourages the growth of social attitudes in the form of a willingness to cooperate and be tolerant of others. The provision of strong spiritual and social attitudes makes the spirit of joint learning high, insight and broad knowledge, as well as the ability to solve various problems better, intact and deep.

# CONCLUSION AND IMPLICATION

Modification of problem-based learning by making Islamic values a spirit of learning in solving problems, studying the verses of the Quran and Hadith, utilizing the results of research as well as various learning resources in the form of books, mass media, journals, magazines, TV, and the internet, and researching social phenomena directly to the community can improve the quality of sociology learning processes and outcomes.

By studying the verses of the Qur'an and Hadith, students get guidance and spirit to study various social phenomena and natural phenomena more deeply, so that they can solve various problems comprehensively. The success of solving the problem does not only have implications for finding solutions to problems, in the form of knowledge, skills and attitudes to deal with various problems of life and life, but also more valuable worship (ibadah).

The results showed that the modification of the problem-based learning model, the quality of the process and student learning outcomes were far better when compared to the application of the problem-based learning model that had not been modified, even more so when compared to the learning model which only had an orientation on teacher activity. This can be proven from the assessment of students who experienced an increase in the quality of the process followed by learning outcomes in cycles 1 and 2. Completion of cognitive aspects in cycle 1 amounted to 37.5% and cycle 2 amounted to 100%, meaning an increase of 62.5% (target rises 42.5%). The results of the analysis of cognitive aspects per student also increased in each cycle, averaging an increase of 7.34. One student (3.13%) experienced the highest increase reaching 20 grades (from 60 to 80), two students (6.25%) experienced an increase of 15 grades, seven students (21.88%) experienced an increase of 11 grades, nine students (28.13%) experienced an increase of 7 grades, five students (15.63%) experienced an increase of 5 grades, five students (15.63%) experienced an increase of 3 grades, and only two students (6.25%) experienced an increase of 2 value.

Meanwhile, learning outcomes on aspects of skills (psychomotor) are different. Even though all students finished learning both in cycle 1 and cycle 2, the increase in student scores tended to be varied, in which 12 students (37.54%) experienced an increase, 7 students (21.88%) did not experience an increase, and 13 students (40,6%) actually experienced a decline, but not so significant. As for the spiritual attitude and social attitude all students get Very Good grades (A) both in the pre-cycle, cycle 1, and cycle 2.

In summary, the grades obtained by students in one aspect cannot be fully used to generalize student grades in other aspects. All aspects (spiritual attitudes, social attitudes, knowledge, and skills) must be assessed and carried out in full, as is the application of the learning model. The use of just one learning model cannot be used to optimally improve student learning outcomes, given the diverse levels of abilities and types and characteristics of students. The ability of teachers to create, re-modeling learning and apply it in more varied and innovative learning becomes the main demand so that students' learning processes and outcomes are maximized. For this reason, further action research is needed, so that renewable learning model formulas can be found, along with the times.

### REFERENCES

Aliyah, Nur. (2018). Efektivitas Pembelajaran Berbasis Masalah untuk Meningkatkan Prestasi dan Pemahaman Materi Ilmu Pengetahuan Alam pada Siswa Kelas VII MTSN 9 Jember [Effectiveness of Problem Based Learning to Improve the Achievement and

Understanding of Natural Sciences Material in Class VII Students of MTSN 9 Jember ]. *Jurnal Edukasi*, 5(1), 40.

Anshori, Isa. (2017). Sistem Kredit Semester (SKS) dalam Pembelajaran Sosiologi (Studi di MAN Lamongan) [Semester Credit System (SCS) in Sociology Learning (Study at MAN Lamongan)]. *CENDEKIA: Jurnal Pendidikan dan Humaniora*, 1(1), 1-12.

Arends, R.I., (2008). *Learning To Teach: Belajar Untuk Mengajar*. Yogyakarta: Pustaka Belajar.

Basrowi. (2008). Prosedur Penelitian Tindakan Kelas [Classroom Action Research Procedure]. Jakarta: Ghalia Indonesia.

Coze, Jean-Christophe Le. (2019). Storytelling or theory building? Hopkins Sociology of safety. *Safety Science*, 120, 735-744.

Choridah, D. T. (2013). Peran Pembelajaran Berbasis Masalah untuk Meningkatkan Kemampuan Komunikasi dan Berpikir Kreatif, serta Disposisi Matematis Siswa SMA [The Role of Problem Based Learning to Improve Communication Skills and Creative Thinking, as well as the Mathematical Disposition of High School Students]. *Infinity Journal*, 2(2), 194-202.

Fachrurazi. (2011). Penerapan Pembelajaran Berbasis Masalah Untuk Meningkatkan Kemampuan Berpikir Kritis Dan Komunikasi Matematis Siswa Sekolah Dasar [Application of Problem Based Learning to Improve Critical Thinking Ability and Mathematical Communication of Primary School Students]. *Jurnal Penelitian Pendidikan*, 1, 76-89.

Fauziah, R., Abdullah, A. G., & Hakim, D. L. (2017). Pembelajaran Saintifik Elektronika Dasar Berorientasi Pembelajaran Berbasis Maasalah [Scientific Learning in Basic Electronics Oriented Problem Based Learning]. *Innovation of Vocational Technology Education*, 9(2), 165-178.

Fitrah, Muh. (2017). Kajian Perspektif Kebermaknaan Pembelajaran Berbasis Masalah Pada Matematika [Study on the Meaning of Meaning of Problem Based Learning in Mathematics]. *Jurnal Sainsmat*, 6(1), 46-58.

Handika, I., & Wangid, M. N. (2013). Pengaruh Pembelajaran Berbasis Masalah terhadap Penguasaan Konsep dan Keterampilan Proses Sains Siswa Kelas V [Effect of Problem Based Learning on the Mastery of Concepts and Science Process Skills of Class V Students]. *Jurnal Prima Edukasia*, 1(1), 85.

Ismaimuza, D. (2011). Kemampuan Berpikir Kritis Matematis Ditinjau dari Pengetahuan Awal Siswa [The Critical Thinking Ability of Mathematics Viewed from Students' Initial Knowledge]. *Jurnal Pendidikan Matematika*, 2(1), 11-20.

Jedynak, Witold., & Kinal, Jaroslaw. (2014). Ethical and Technological Aspects of the Learning Process in Sociology. *Procedia-Social, and Behavioral Sciences*, 140, 328-332.

Jumaisyaroh, T., Napitupulu, E. E., & Hasratuddin, H. (2015). Peningkatan Kemampuan Berpikir Kritis Matematis dan Kemandirian Belajar Siswa SMP Melalui Pembelajaran Berbasis Masalah [Increased Mathematical Critical Thinking Ability and Independence of Middle School Student Learning Through Problem Based Learning]. *Kreano, Jurnal Matematika Kreatif-Inovatif*, 5(2), 157.

Kasbolah, K. (2001). *Penelitian Tindakan Kelas* [*Classroom action research*]. Malang: Universitas Negeri Malang.

Kleczek, Ryszard. Hajdas, Monika. Wrona, Sylwia. (2020). Wicked Problems and Project-Based Learning: Value-in-use approach. *The International Journal of Management Education*, 18(1), 1-7.

Kresnandi, Hery., & Abdussamad. (2013). Penerapan Model Pembelajaran Berbasis Masalah Untuk Meningkatkan Hasil Belajar Siswa Pada Pembelajaran Ilmu Pengetahuan Alam [Application of Problem Based Learning Model to Improve Student Learning Outcomes in Natural Science Learning]. *Jurnal Pendidikan dan Pembelajaran Katulistiwa*, 2(7), 1-7.

Li, Yuan. Wang, Xiu. Zhu, Xuan-rui. Zhu, Yan-xin., & Sun, Jiao. (2019). Effectiveness of Problem-Based Learning on the Proffesional Communication Competencies of Nursing Students and Nurses: A Systematic Review. *Nurse Education in Practice*, 37, 45-55.

Mas'ulah, Dewi. Sumarmi., & Budijanto. (2016). Penerapan Model Pembelajaran Berbasis Masalah dengan Memanfaatkan lingkungan sekitar sebagai sumber belajar pada materi Atmosfir untuk meningkatkan hasil belajar siswa MA Darunnajah Nganjuk [Application of Problem Based Learning Model by Utilizing the surrounding environment as a learning resource on Atmospheric material to improve student learning outcomes MA Darunnajah Nganjuk]. *e-Journal Program Pascasarjana Universitas Pendidikan Ganesa Program Studi Teknologi Pembelajaran*, 6(1), 1-10.

Nasution, S. (1996). *Metode Penelitian Naturalistik Kualitatif* [Qualitative Naturalistic Research Methods]. Bandung: Tarsito.

Noviantii, E., Yuanita, P., & Maimunah, M. (2020). Pembelajaran Berbasis Masalah dalam Meningkatkan Kemampuan Pemecahan Masalah Matematika [Problem Based Learning in Improving Ability to Solve Mathematical Problems]. *Jurnal Pendidikan dan Pembelajaran Penelitian Matematika (JELMaR)*, 1(1), 65-73.

Raelin, J. A., & Coghlan, D. (2006). Developing managers as learners and researchers: Using action learning and action research. *Journal of Management Education*, 30(5), 670-689.

Rahmawati, U., & Suryanto, S. (2014). Pengembangan Model Pembelajaran Matematika Berbasis Masalah untuk siswa SMP [Development of Problem Based Mathematics Learning Models for Middle School students]. *Jurnal Riset Pendidikan Matematika*, 1(1), 88-97.

Ramadhani, R., Umam, R., Abdurrahman, A., & Syazali, M. (2019). The effect of flipped-problem based learning model integrated with LMS-google classroom for senior high school students. Journal for the Education of Gifted Young Scientists, 7(2), 137–158.

Rizqi, N. R., & Arini, L. (2020). Pengaruh Pendekatan Pembelajaran Berbasis Masalah Untuk Meningkatkan Kemampuan Komunikasi Matematis Siswa [Effect of Problem-Based Learning Approaches to Improve Students' Mathematical Communication Skills ]. *Journal of Didactic Mathematics*, 1(1), 26–31.

Rusakova, T., Morozova, T., & Gabdrakhmanova, E. (2017). Developing Spiritual and Moral Culture of Acedemic Students. Case Study of the Russian Education. *In EDULEARN17 Proceedings*, IATED, 1, 6429–6437.

Sari, Lina Siti Permana., & Rahadi, Moersetyo. (2014). Pembelajaraan Berbasis Masalah Untuk Meningkatkan Kemampuan Komunikasi Matematika Siswa Sekolah Menengah Pertama [Problem Based Learning To Improve Mathematical Communication Skills of Middle School Students]. *Jurnal Pendidikan Matematika*, 3(3), 143-150.

Sumartini, T. S. (2018). Peningkatan Kemampuan Pemecahan Masalah Matematis Siswa melalui Pembelajaran Berbasis Masalah [Improvement of Students' Mathematical Problem Solving Abilities through Problem Based Learning]. *Mosharafa: Jurnal Pendidikan Matematika*, 5(2), 148-158.

Supriyadi, Edy. Zamtinah. Soenarto, Sunaryo., & Hatmojo, Yuwono Indro. (2019). A. Character-Based Assessment Model for Vocational High Schools. *Cakrawala Pendidikan*, 38(2), 269-281.

Utami, Yulianita Diah. (2013). Pengaruh Penerapan Model Problem Based Learning dan Motivasi Belajar terhadap Prestasi Belajar Sosiologi Siswa Kelas XI IPS SMA Negeri 2 Sukoharjo Tahun Pelajaran 2012/2013 [The Effect of Application of Problem Based Learning Model and Learning Motivation on Sociology Learning Achievement of Social Sciences Grade XI Students of SMA Negeri 2 Sukoharjo Academic Year 2012/2013]. Sosialitas: Jurnal Ilmiah Pendidikan Sosiologi Antropologi, 3(1), 1-11.

Yusmanidar, Khaldun, Ibnu., & Mudatsir. (2017). Penerapan Pembelajaran Berbasis Masalah Menggunakan Metode Praktikum dalam Upaya Meningkatkan Ketrampilan Proses Sain dan Motivasi Siswa pada Pokok Bahasan Hidrolisis Garam [Application of Problem Based Learning Using Practicum Methods in Efforts to Improve the Science Process and Motivation Skills of Students in Salt Hydrolysis Subjects]. *Jurnal IPA dan Pembelajaran IPA (JIPI)*, 1(1), 73-80.

Vaisey, Stephen., & Valentino, Lauren. (2018). Culture and Choice: Toward integrating cultural sociologi with the judgment and decision-making sciences. *Poetics*, 68, 131-143.