

## *Development of Islamic Personality Through Providing Motivation in the form of Muslim Mathematics History*

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### **Abstract**

This research was motivated by the activities of Muslims, especially students of the Mathematics Education study program at UIN SYAHADA Padangsidempuan, which did not reflect an Islamic personality. Efforts that can be made to form an Islamic personality include providing motivation in the form of the history of Muslim mathematicians. The formulation of the problem in this research is: What are the Islamic personality criteria for students in the Tadris/mathematics education study program through providing motivation in the form of stories about the history of Islamic mathematics? How is the development of the Islamic personality of students in the Tadris/mathematics education study program through providing motivation in the form of stories about the history of Islamic mathematics? This type of research is action research, data collection in the form of questionnaires and interviews. The results of this research are that the Islamic personality criteria for I UIN SYAHADA Padangsidempuan students have a score of 66.51% in the "Good" area interval. This can be seen from praying before studying, praying five times a day and night, asking permission from parents when leaving the house. and ask permission and apologize to the lecturer when entering the class. in the event of being late, Islam prohibits dating and promiscuity, the obligation to cover one's private parts, and complete one's own tasks. However, in terms of reading the Koran day and night, greeting lecturers on the street, attending weekly recitations, picking up rubbish scattered in the classroom and in front of the class, there is still little progress.

**Keywords:** *Islamic Personality; Motivation; Muslim Mathematician.*

### **Abstrak**

Penelitian ini dilatarbelakangi oleh aktivitas umat Islam khususnya mahasiswa program studi Pendidikan Matematika UIN SYAHADA Padangsidempuan yang kurang mencerminkan kepribadian Islami. Upaya yang dapat dilakukan untuk membentuk kepribadian Islami antara lain dengan memberikan motivasi berupa sejarah matematikawan muslim. Rumusan masalah dalam penelitian ini adalah: Bagaimana kriteria kepribadian Islami mahasiswa program studi Tadris/pendidikan matematika melalui pemberian motivasi berupa cerita tentang sejarah matematika Islam? Bagaimana pengembangan kepribadian Islami peserta didik program studi Tadris/pendidikan matematika melalui pemberian motivasi berupa cerita tentang sejarah matematika Islam? Jenis

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penelitian yang digunakan adalah penelitian tindakan, pengumpulan data berupa angket dan wawancara. Hasil dari penelitian ini adalah kriteria kepribadian Islami mahasiswa I UIN SYAHADA Padangsidempuan mempunyai skor sebesar 66,51% berada pada interval area “Baik”. Hal ini terlihat dari salat sebelum belajar, salat lima waktu sehari semalam, meminta izin kepada orang tua saat keluar rumah. dan meminta izin serta meminta maaf kepada dosen saat memasuki kelas. jika terlambat, Islam melarang pacaran dan pergaulan bebas, kewajiban menutup aurat, dan menyelesaikan tugas sendiri. Namun dalam hal membaca Al-Quran siang malam, menyapa dosen di jalan, mengikuti pengajian mingguan, memungut sampah yang berserakan di ruang kelas dan di depan kelas, masih sedikit kemajuannya.

**Kata Kunci:** Kepribadian Islam; Motivasi; Matematikawan Muslim.

## INTRODUCTION

Humans should understand the nature of life in the world. If you fail to understand it, it will make someone like a broken kite move without a clear direction. Humans are expected to live this life according to God's will, and be able to master science and technology so that humans make good use of natural resources. A person's personality is formed from thought patterns and attitude patterns.

We can see now that many Muslim activities are not in accordance with the Islamic personality. Likewise, the situation of some UIN SYAHADA Padangsidempuan students, especially Mathematics Education study program students, does not reflect the Islamic personality. Islamic personality is a unified whole of thought and attitude patterns. The pattern of thought is also called aqliyah, and the pattern of attitude is also called nafsiyah which is based on Islamic beliefs which give birth to actions (Mudrikah, 2015). A person who has an Islamic personality means the integration of thoughts and attitudes which give birth to actions that make Islamic creed as its principle (Silahudin, 2019).

One effort that can be carried out to form an Islamic personality in students is through providing motivation in the form of the history of Islamic mathematics. Motivation comes from the word motive, namely in the form of a person's internal driving force to carry out an activity to achieve a certain goal (Cleopatra, 2015). How strong a person's motivation is will determine the quality of the actions that emerge, both in learning, working and other activities (Saifullah

& Muchlis, 2019). Motivation can be grown with stories about Islamic mathematics from a historical perspective. Motivation can be grown with stories about Islamic mathematics from a historical perspective (Kusumawati, 2019).

Mathematics has a very large role in other fields of science (Maula et al., 2018). Mastery of science and technology, including mathematics, is directly or indirectly useful for forming an Islamic personality. Mathematics is known as the basis of all science, for example several studies on geometry turned out to have contributed to great scientists in the following period, including Muslim mathematicians such as (1) Al-Khwarizmi known as the scientist who discovered the concept of algorithms, (2) Al-Kindi discovered the cryptological crisis, (3) Al-Karaji discovered algebraic calculus, (4) Ibn A-Haytham discovered the integral formula, and many other mathematicians. The birth of Muslim mathematicians was born from spiritual encouragement, namely several commands from the Koran to take care of the people so that they actively studied mathematics, which was not just a concept but could be applied in real life. And mathematicians during the heyday of Islam in the past were known for their noble Islamic personalities.

Motivation to learn mathematics is very important for students. Motivation with stories of Muslim mathematicians and the integration of Islam in mathematics learning has been widely used by previous researchers. (Yugita et al, 2023) the results of his research show increased motivation to learn mathematics through the integration of Islam. Likewise, research (Faizah et al, 2023) conducted research, namely that mathematics learning was integrated with Islam and character, and the results of the research were able to form positive character for students. Likewise research (Imamuddin et al, 2022), and also (Sari et al 2023), namely conducting research by developing mathematics teaching materials with the integration of Islam in learning to instill Islamic values, so the results are able to improve students' Islamic values.

Based on the background of the problem above, the author wants to conduct research with the title: Development Of Islamic Personality Through Providing Motivation In The Form Of Muslim Mathematics History.

## **RESEARCH METHODS**

This type of research is action research, namely participatory and democratic research related to the development of practical knowledge to achieve useful goals in life. Action research is concerned with action to achieve practical results and also create new understanding (Yaumi, 2016).

The population is all the subjects used as research objects, namely 58. The sample is part of the number and characteristics of the population. To determine the number of samples, the researcher took samples guided by Suharsimi Arikunto's opinion which states that if there are less than 100 subjects, it is better to take all of them so that the research is a population. The samples in this research were all Tadris/Mathematics Education students in the fourth semester of the Padangsidempuan State Islamic Institute class of 2020, totaling 58 students.

In this research, a data collection instrument was used to determine the development of the Islamic personality of students in the Tadris/mathematics education study program through providing motivation in the form of stories about the history of Islamic mathematics, namely interviews and questionnaires. In this research, the type of questionnaire that will be used by the researcher is the closed questionnaire. As for the guidelines for conducting interviews in this research, there are 20 question points covering matters relating to the development of the Islamic personality of students in the Tadris/mathematics education study program through providing motivation in the form of stories about the history of Islamic mathematics.

A good instrument must fulfill two important requirements, namely valid and reliable. Before the questionnaire was distributed or given to research respondents, it was first tested on non-sample respondents to measure the validity and reliability of the research questionnaire. The experimental samples used were 30 samples with 20 statements, using a significance level of 5%. After carrying out the validity test, 14 valid questionnaire items were obtained.

In this study, each questionnaire statement item was analyzed after calculating the number of students who chose answer options a, b, c, and d. Each

respondent's answer obtained from the questionnaire items is described. The results of the interviews with students were also described together with descriptions of the answers to the questionnaire items. So that the development of the Islamic personality of UIN SYAHADA Padangsidempuan students through providing motivation in the form of stories about the history of Islamic mathematics obtained from distributing questionnaires and interview results is outlined in the data description. Next, to find out the category of Islamic personality development of UIN SYAHADA Padangsidempuan students by providing motivation in the form of stories about the history of Islamic mathematics, the questionnaire data will be processed and analyzed. Processing and analysis will be carried out by: Calculating the score of the research subject's answers to the questionnaire.

## RESULTS AND DISCUSSION

To find out the criteria for the development of Islamic personality of UIN SYAHADA Padangsidempuan students by providing motivation in the form of stories about the history of Islamic mathematics, as previously determined, the total score for each research subject's questionnaire data will be calculated. As stated in the previous chapter, this questionnaire uses a rating scale where each statement with option "a" is given a score of 4, option "b" is given a score of 3, option "c" is given a score of 2, and option "d" is given a score of 1 . From the entire questionnaire data, to find out the criteria for Islamic personality of UIN SYAHADA Padangsidempuan students by providing motivation in the form of stories about the history of Islamic mathematics, where this can be measured by:

$\alpha = \text{Total Criteria Scores} \times \text{Number Of Item} \times \text{Number Of Respondens}$  (4 x 16 x 58 =3712).

Thus, the Islamic personality of UIN SYAHADA Padangsidempuan students was provided by providing motivation in the form of stories about the history of Islamic mathematics from 58 students Tadris/Mathematics Education

that is  $\frac{\text{Number Of Data Collection Score}}{x} \times 100\% = \frac{2469}{3712} = 66,51\%$ . From the

established criteria it can be interpreted that the score of 66.51% is in the "Good" area interval.

The development of the Islamic personality of UIN SYAHADA Padangsidempuan students through providing motivation in the form of stories about the history of Islamic mathematics can be seen from descriptive analysis. point of praying before studying, the percentage of students who answered always was (36.2%), the percentage of students who answered often was (41.4%), the percentage of students who answered sometimes was (22.4%), while the percentage of students who answered never was reached (0%). And this answer is supported by interviews with students, that providing motivation in the form of the history of Islamic mathematics carried out in class makes them pray more often before studying. For more details, see the table below:

**Table 1. Questionnaire Items: "I Pray Before Studying"**

<b>Alternative Answers</b>	<b>F</b>	<b>%</b>
Always	21	36,2
Often	24	41,4
Sometimes	13	22,4
Never	0	0
Answer	58	100

In terms of praying five times a day and night, the percentage of students who answered always was (41.4%), the percentage of students who answered often was (51.7%), the percentage of students who answered sometimes was (6.9%), while the percentage The percentage of those who answered never reached (0%). And this answer is supported by interviews with students, that by giving motivation in the form of the history of Islamic mathematics which is carried out in class, students increasingly understand that prayer is God's command that must be carried out, even though the majority of these students still leave prayer or their prayers have not been fully carried out five times. one day and one night. For more details, see the table below:

**Table 2. Questionnaire Items: “I Pray Five Times a Day and Night”**

Alternative Answers	F	%
Always	1	1,7
Often	34	58,6
Sometimes	23	39,7
Never	0	0
Answer	58	100

In terms of reading the Koran during the day and night. The percentage of students who answered always was (1.7%), the percentage of students who answered often was (58.6%), the percentage of students who answered sometimes was (39.7%), while the percentage of students who answered never was (0%) . And this answer was supported by interviews with students, through providing motivation in the form of the history of Islamic mathematics which was carried out in class, from 58 students, 34 students who often read the Al-Quran during the day and night. For more details, see the table below:

**Table 3. Questionnaire Items:  
 “I Read Al-Qur’an During the Day and Night”**

Alternative Answers	F	%
Always	24	41,4
Often	30	51,7
Sometimes	4	6,9
Never	0	0
Answer	58	100

In terms of asking permission from parents when leaving the house. The percentage of students who answered always was (65.6%), the percentage of students who answered often was (17.2%), the percentage of students who answered sometimes was (17.2%), while the percentage of students who answered never was (0%) . And this answer was supported by interviews with students, through providing motivation in the form of the history of Islamic mathematics which was carried out in class. Of the 58 students, 38 students always asked their parents for permission when they wanted to leave the house. For more details, see the table below:

**Table 4. Questionnaire Items:  
“I Ask My Parents’ Permission When I Want to Leave the House”**

Alternative Answers	F	%
Always	38	65,6
Often	10	17,2
Sometimes	10	17,2
Never	0	0
Answer	58	100

In terms of greeting if you meet a lecturer on the street. The percentage of students who answered always was (8.6%), the percentage of students who answered often was (29.4%), the percentage of students who answered sometimes was (56.9%), while the percentage of students who answered never was (5.1%). And this answer is supported by interviews with students, through providing motivation in the form of the history of Islamic mathematics which is carried out in class, the most of which is 33 students, sometimes greeting them when they meet the lecturer on the street. For more details, see the table below:

**Table 5. Questionnaire Items:  
“I Give Greetings When I Meet Lecturers On the Street”**

Alternative Answers	F	%
Always	5	8,6
Often	17	29,4
Sometimes	33	56,9
Never	3	5,1
Answer	58	100

In terms of going out with girlfriends every week. The percentage of students who answered always was (0%), the percentage of students who answered often was (0%), the percentage of students who answered sometimes was (15.5%), while the students who answered no once the percentage reached (84.5%). And this answer is supported by interviews with students, through providing motivation in the form of the history of Islamic mathematics which is carried out in class, most students never date their girlfriends every week. For more details, see the table below:



**Table 6. Questionnaire Items:  
“I Go On a Date With My Boyfriend Every Saturday Night”**

Alternative Answers	F	%
Always	0	0
Often	0	0
Sometimes	9	15,5
Never	49	84,5
Answer	58	100

In terms of taking part in Islamic studies every week. The percentage of students who answered always was (1.7%), the percentage of students who answered often was (5.2%), the percentage of students who answered sometimes was (70.7%), while the percentage of students who answered never was (22.4%). And this answer is supported by interviews with students, through providing motivation in the form of the history of Islamic mathematics which is carried out in class, most students sometimes take part in Islamic studies. For more details, see the table below:

**Table 7. Questionnaire Items: “I Take Part in Islamic Studies Every Week”**

Alternative Answers	F	%
Always	1	1,7
Often	3	5,2
Sometimes	41	70,7
Never	13	22,4
Answer	1	1,7

In terms of covering your private parts when you leave the house and when you are in the presence of non-mahrom. The percentage of students who answered always was (62%), the percentage of students who answered often was (25.9%), the percentage of students who answered sometimes was (12.1%), while the percentage of students who answered never was (0%). And this answer is supported by interviews with students, through providing motivation in the form of the history of Islamic mathematics which is carried out in class, most students always cover their private parts when leaving the house and when they are in the presence of non-marriages. For more details, see the table below:

**Table 8. Questionnaire Items: “I Wear the Hijab When I Leave the House and When I am in the Presence of non-Marriage”**

Alternative Answers	F	%
Always	36	62
Often	15	25,9
Sometimes	7	12,1
Never	0	0
Answer	58	100

In terms of asking friends to complete individual tasks. The percentage of students who answered always was (0%), the percentage of students who answered often was (3.4%), the percentage of students who answered sometimes was (39.7%), while the percentage of students who answered never was (56.9%) . And this answer is supported by interviews with students, through providing motivation in the form of the history of Islamic mathematics which is carried out in class, most students never ask friends to complete individual assignments. For more details, see the table below:

**Table 9. Questionnaire Items: “I Asked Friend to Complete My Individuals Assignments”**

Alternative Answers	F	%
Always	0	0
Often	2	3,4
Sometimes	23	39,7
Never	33	56,9
Answer	58	100

In terms of picking up rubbish scattered in the classroom or in front of the class. The percentage of students who answered always was (0%), the percentage of students who answered often was (13.7%), the percentage of students who answered sometimes was (77.7%), while the percentage of students who answered never was (8.6%) . And this answer was supported by interviews with students, through providing motivation in the form of the history of Islamic mathematics which was carried out in class, most students stated that they sometimes picked up rubbish that was scattered in the classroom or in front of the class. For more details, see the table below:

**Table 10. Questionnaire Items: “I Pick Up Trash Scattered in the Classroom and In Front Of The Class”**

Alternative Answers	F	%
Always	0	0
Often	8	13,7
Sometimes	45	77,7
Never	5	8,6
Answer	58	100

Some of the personality indicators above, students' Islamic personality is developing better, but in terms of reading the Koran during the day and night, giving greetings when they meet lecturers on the street, taking part in Islamic studies every week, picking up rubbish that is strewn around. class and in front of the class, there is only a little development, and hopefully it can be developed in further research.

## CONCLUSION

The Islamic personality criteria for UIN SYAHADA Padangsidempuan students through providing motivation in the form of stories about the history of Islamic mathematics for Tadris/Mathematics Education students can be interpreted as a score of 66.51% being in the "Good" area interval. Based on data analysis sourced from questionnaires and interview results, it shows that the development of students' Islamic personality can be seen from praying before studying, praying five times a day and night, asking permission from parents when leaving the house and asking permission and apologizing to the lecturer when entering class. when you are late, Islam prohibits dating and promiscuity, the obligation to cover your private parts, and complete your own tasks. But in terms of reading the Qur'an during the day and night, giving greetings if you meet lecturers on the street, taking part in the study. Islam every week, picking up rubbish strewn in the classroom and in front of the class, has made little progress.

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