

UNDERSTANDING FRACTIONS NUMBER MATERIAL RELATIONSHIP WITH ABILITY TO WORK ON MAWARIS PROBLEMS IN MAWARIS FIQH COURSE IN ISLAMIC FAMILY LAW STUDY PROGRAM (HKI)

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Abstract

The purpose of this study was to determine a positive relationship between understanding fractions and the ability to work on Mawaris questions in the Mawaris Fiqh course at the Islamic Family Law Study Program (HKI). This study uses a survey with a correlational approach. The sample in research is students of Islamic Family Law (HKI) at the Ibn Khaldun University, Bogor, which consists of 20 respondents. Collecting data in this study is to use a test in the form of questions that have been declared valid and reliable, then used as a data collection tool to be studied. The results obtained indicate a positive relationship between understanding fractional numbers and the ability to work on Mawaris questions in the Fiqh Mawaris course at the Islamic Family Law Study Program (HKI), the results are shown by the correlation coefficient $r_{xy} = 0.588$ with the termination coefficient . by 58%, it can be concluded that the ability to work on the Mawaris problem can be from understanding the material of fractions.

Keywords : *Understanding Fractional Number, Mawaris Question*

INTRODUCTION

Education is an important factor that plays a role in human civilization (Anggreni, 2019) to carry out life and achieve life goals to be more effective and efficient (Hasri, 2015) as well as shared responsibilities and carried out for life, both in the school, home, and even community. general. The classification of science according to Ibn Sina is theoretical science and practical science, in line with this

according to Muhammad Fadhil stated that all types of knowledge contained in the Qur'an must be taught to students, such as law, mathematics, social sciences, linguistics Arabic, and various sciences that can reach and elevate the status of mankind. Between one science and another science is interrelated which comes from the Al-Quran (MHD.Nurdin, 2019) . Mathematics is a branch of science that has a function as *mathematics is the Queen, and the serve of science* which can be interpreted that mathematics is the queen of a science and is a servant to other sciences (Supriyadi, 2021) . In everyday life, almost all fields require mathematics, even in religious practice, Muslims are required to understand mathematics.

Mathematics has an important role in the development of science and technology (Rahmah, 2018) and plays a role in human life such as the science of numbers and space, the science of deductive quantities, because mathematics can produce various disciplines that develop and are related to the science of religion. one of them is about the science of Mawaris (MHD.Nurdin, 2019) because Islam is a religion that upholds science (Nasaruddin, 2014) and is a civilized religious teaching (Rizqon Halal, 2014) . One of the laws regulated by Islam is regarding inheritance (Fadhli, 2021) the distribution of inheritance in Islam has been regulated in detail (Wahidah, 2018) Mawaris science or known as faraid science is a scientific discipline that provides rules or procedures for the transfer of property ownership, Sharia rights, from the heir to his surviving heirs (Bachri, 2020) the distribution of inheritance to each heir must be appropriate (Septiani, 2019) . Inheritance law occupies an important role in Islam (Hidayah, Lili Naili, 2021) and is closely related to human life (Suparlan, 2019) because by studying it, Muslims avoid disputes regarding the distribution of inheritance (Fatimah Syaiful, Rasmuin, 2020) because of property problems. is not an easy matter, many cases can lead to conflict, both in the realm of society, family, as well as the nation and state, only because of the distribution of inheritance (Muhibbussary, 2020) In line with this, Faraid/mawaris learning has its own uniqueness and is one of the a branch of science that is considered complicated for students because it relates to the calculation of numbers, including those related to fractional numbers (Agus Sulisty, 2021) . The concept of fractions is useful in inheritance law, but it is difficult to learn (Dewi Rosikhoh, 2020) .

Quoted from Netriwati who interviewed lecturers of fiqh courses, it can be concluded that students have not been able to understand in working on problems related to faraid/inheritance law, as evidenced by the difficulty of detailing the fractions obtained by each heir (Netriwati, 2016) should be able to in solving problems is one of the learning skills that must be possessed by students (Muhrodin, 2019) In line with the research, M.Habiburrahman stated that there was a problem encountered when studying inheritance distribution material, which stated that many students were able to study mathematics and understand about fractional number operations, but when they encounter inheritance division materials, they are difficult and hampered in solving them, even though inheritance material is related to fractional number operations, (M.Habiburrahman, 2019) .

So the authors are interested in researching " *Understanding Fractions Number Material Relationship with Ability to Work on Mawaris Problems in Mawaris Fiqh Course in Islamic Family Law Study Program (HKI)*"

METHOD

This research uses a correlational survey method approach. With the aim of knowing the relationship between understanding fractions and the ability to work on the Mawaris problem in the Mawaris fiqh course at the Islamic Family Law Study Program (HKI) of Ibn Khaldun University. This study uses an instrument in the form of a test given to students of Islamic Family Law, Ibn Khaldun University, Bogor, in the research conducted as many as 20 respondents.

RESULTS AND DISCUSSION

Description of Data

After the researcher obtained the independent variable data and the dependent variable data, then the data was obtained using the SPSS v.26 program. then the results of descriptive statistics are obtained as follows:

In the statistical output from the data frequency analysis, there are 20 values of understanding fractions, the number of valid data is 20 people and the data is missing or missing is 0. The average value (*Mean*) is 76.93 with the standard error data average (*Std. Error of Mean*) 1.23. The median value (*Median*) is 75.51, the data that occurs frequently is 75, the standard deviation (*Std. Deviation*) is 6.48, the variance of the data (*Variance*) is 41.98, the skewness of the curve (*Skewness*) is 0.68 with the standard error skewness namely 0.441, the sharpness of the curve (*Kurtosis*) is -0.140 with the standard error of kurtosis (*Std. Error of Kurtosis*) is 0.858, the distance (*Range*) is 23, the smallest value (*Minimum*) is 67, the largest value (*Maximum*) is 90, Total data the value is 2154.

The next output result is the ability to work on the Mawaris question, the number of valid data is 20 people and the missing data is 0. The average value (*Mean*) is 72.87 with a standard error of the average data (*Std. Error of Mean*) 2.21368. The median value (*Median*) is 72.5, the data that often appears is 72, the standard deviation (*Std. Deviation*) is 11.74, the data variance (*Variance*) is 137.210, the skewness of the curve (*Skewness*) is 0.016 with the standard error skewness 0.441, sharpness curve (*Kurtosis*) is -0.492 with standard error of kurtosis (*Std. Error of Kurtosis*) is 0.86, distance (*Range*) is 42, the smallest value (*Minimum*) is 53, the largest value (*Maximum*) is 95, the total value data is 2041.

Data analysis

In analyzing the data, the first thing to do as a prerequisite for the analysis is the data normality test or a *test of normality* using the Liliefors formula. When the normality test is met, the parametric test will work well. However, if the normality test is not met then use non-parametric statistics. This output explains the test results whether a data distribution can be said to be normal or not, with decision-making guidelines, namely: If the Sig value or significance or probability value < 0.05 , then the distribution is not normal, If the Sig value or significance or probability value $> 0, 05$, then the distribution is normal.

Based on the output of the data normality test, it was found that the significance value of the Kolmogorov-Smirnov was $0.189 > 0.05$ and $0.200 > 0.05$, so the scores for understanding fractions and the ability to work on the Mawaris questions were normally distributed.

From the output of the Spearman-Rank correlation test, it was obtained that the sig. (2-tailed) which connects students' understanding of fractional number material and students' ability to work on the student's Mawaris questions, which is 0.001 smaller than 0.05. Then the hypothesis test can be concluded that H_0 is rejected or H_1 is accepted, with the conclusion that there is a relationship between understanding the material on fractions and the ability to work on the Mawaris question "or in other words, the understanding of the fractional number material affects the ability to work on the Mawaris question". To determine the magnitude of the correlation coefficient, it can be seen in Spearman's rho that the magnitude is 0.588 (positive correlation).

Based on the interpretation guidelines, the correlation coefficient of 0.588 is in the range of 0.40 - 0.599 (medium), this indicates that there is a moderate relationship between understanding of fractional number material and the ability to work on the Mawaris question. From the resulting output, it can be seen that the variable understanding of fractional number material and the ability to work on the Mawaris problem has a ** (0.588**) sign so it can be concluded that there is a significant relationship with the positive coefficient sign, meaning that it is in the same direction between the understanding of the fractional number material and the ability to work on the Mawaris question, meaning that the more increasing the understanding of fractional number material will strengthen the ability to work on the Mawaris problem.

DISCUSSION

This study aims to analyze the relationship between understanding the material fractions with the ability to work on the problems of Mawaris. Mathematics is a subject that is very closely related to everyday life. In fact, almost all scientific disciplines are closely related to mathematical material, whether social science, engineering science, natural science or religious science. One of the religious sciences related to mathematics is the science of faraid or the science of Mawaris. The science of faraid is the science of the distribution of inheritance according to Islamic law which has been conveyed through the Qur'an and as-Sunnah.

The science of faraid is included in the study of fiqh, but because of its specialty, the scholars make a separate discussion so that there are many special books that discuss the science of faraid (Adil, 2010). Faraidh science is also called the science of Mawaris, which is the science that discusses the amount of inheritance rights that will be received by each heir after the death of the heir, based on the provisions of the Qur'an. (Hudaya, 2018) provides a definition of faraidh science is the study of the procedure for the transfer of heir assets to heirs in accordance with sharia provisions. Achmad in Syaiful, Rasmuin, & Saleh, (2020) added that the faraidh problem is a problem related to the arrangement and distribution of inheritance according to the part specified in the Qur'an. In studying the science of faraidh requires an understanding of mathematics to complete the division of inheritance, especially understanding in fractional operations.

The Mandiri Kumala Lestari Islamic Boarding School is a boarding school that integrates religious subject matter and general lessons and provides educational supplies to students about skills in the field of agribusiness. One of the religious subject matter taught is Fiqh material. In fiqh material there is faraid science material. Based on field observations, there is an assumption that the faraidh material is a fairly difficult material, because there are mathematical problems in solving the division of inheritance.

Based on the results of the research above, it shows that there is a moderate relationship between understanding of fractional number material and the ability to work on the Mawaris question, with the correlation coefficient being 0.588 in the range 0.40 - 0.599 (medium) and in the same direction. This can be seen from the results of the coefficients that get positive numbers. So that it can be interpreted that every increase in understanding of unit fraction number material will be followed by an increase in the ability to work on the problems of Mawaris. On the other hand, if the understanding of fractional numbers decreases by 1 unit, the faraidh value tends to decrease.

Understanding of fractional number material HKI students obtained quite good results, this can be shown by the average acquisition of fractional number material understanding in the final assessment of the universe, which was 76.93 . In general, the

acquisition of student learning outcomes is above the minimum completeness criteria. However, observations in the field found that there were students who still had difficulties in following the Mawaris Fiqh learning in certain chapters. This is because, when students participate in Fiqh Mawaris learning, they are left behind in understanding the material in the previous chapter. So this results in a lack of understanding of students in learning new materials.

Furthermore, the ability to work on the problems of the IPR students obtained quite good results as well. This can be shown by the acquisition of the average understanding of the fractional number material at the final assessment of the universe is 72,9. Directly, the average acquisition of the ability to work on the Mawaris problem is not too different from the acquisition of understanding of the fractional number material. Based on observations in the field, it was found that students had difficulties in solving inheritance problems. In determining the share of each heir, students still find it difficult because each part of the heir will change according to their respective conditions. Likewise, at the fractional number operation stage, there are students who have difficulty in the process of dividing and multiplying the inheritance for each heir. The average understanding of fractions material is greater than the ability to work on the Mawaris fiqh questions. The average difference between the two results is 4.04. In the competence of faraidh science material, it does not only focus on the ability to calculate for the distribution of inheritance. However, before completing the calculation in the completion of the inheritance section, there are competencies that are quite complicated for students, namely understanding the condition of each heir and the condition of the heir himself. The share of each heir will change following the existence of the other heirs, this makes it difficult for students, because they must understand and memorize each part of the heir according to their respective conditions. Furthermore, based on observations, students also find it difficult with the calculation model in the chapter on special problems in inheritance. As in the inheritance of the missing person, grandfather's inheritance with relatives and others. However, the application of the varied learning models used by teachers can increase students' learning motivation even though the subject matter is considered difficult.

In a study (Nurdin, 2019) entitled "The Relationship of Understanding Fractional Numbers with the Ability to Work on Mawaris Problems in Jurisprudence Subjects at Madrasah Aliyah Muhammadiyah Pekanbaru". In this study, it is discussed in more detail about the students' ability to understand the fractional number material in Mathematics subjects with the students' ability to work on faraidh questions. From the results of data analysis regarding the relationship between understanding fractional numbers and the ability to work on Mawaris questions at Madrasah Aliyah Muhammadiyah Pekanbaru, it can be concluded that there is a "very strong" relationship, with the measurement results obtained are $r = 0.922$. Where the relationship is between "r" 0.900-1,000 (very strong).

From the several studies above, the results show that between the ability to understand mathematical material and the ability to understand faraidh material, both have a unidirectional or positive and mutually reinforcing relationship. Thus, it is no exaggeration to say that mathematics is the queen of science, in which mathematics is the key to the door to knowledge of other disciplines. Mathematics is also a supporting science for the implementation of Islamic law properly and perfectly, for example in terms of inheritance, zakat or astronomy.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the study of the results of data analysis that has been carried out, it can be concluded that there is a relationship between understanding fractions with the ability to work on Mawaris questions in the Mawaris fiqh course at the Islamic Family Law Study Program (HKI) and there is a positive effect between understanding fractions material and the ability working on the Roseis questions indicated by the correlation coefficient $r = 0.588$.

Suggestion

The author suggests that further research is needed on other factors that can influence Islamic Family Law (HKI) students at the Ibn Khaldun University Bogor in solving fractions with the ability to work on Mawaris questions. Although there is a significant relationship between solving fractional numbers and the ability to work on Mawaris questions, it would be better to look for other factors that are more dominant so that the benefits provided are maximized. For lecturers who support fiqh courses, it is better to pay more attention to students regarding this influence, this is to help improve student learning outcomes and can see the level of ability in solving problems of Mawaris. And to the students, it is better if there is an increase in motivation to maximize the abilities possessed by each student.

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