

## **Religious Moderation as Context In Math Story Problems: A Way to Instill it Indirectly to 6<sup>th</sup> Grade Students**

**Muhammad Win Afgani**

Universitas Islam Negeri Raden Fatah Palembang, Indonesia  
muhammadwinafgani\_uin@radenfatah.ac.id

**Retni Paradesa**

Universitas Islam Negeri Raden Fatah Palembang, Indonesia  
retniparadesa@radenfatah.ac.id

### **Abstract**

The attitude of religious moderation is very important to be instilled in 6<sup>th</sup> grade of ibtidaiyah madrasa students. One of the indicators of a person having a moderate religious understanding is respecting local culture. In mathematics learning, respecting the wisdom of local culture can be started by introducing it through the integration within math story problems as a context. From this introduction, the students are expected to appreciate local cultural wisdom as well as realize the meaning of context in learning mathematics. The integration will be discussed in this article with library research with literature review as the method.

**Keywords:** Local Culture Wisdom, Math Story Problems, Religious Moderation, Ibtidaiyah Madrasa Students.

### **INTRODUCTION**

The attitude of religious moderation is very important to be instilled in 6<sup>th</sup> grade students so that they can respect other people's cultures even though they differ in belief or religion. The importance of this attitude is given to students from an early age due to the increasing cases of intolerance in Indonesia according to Romo Antonius Benny Susetyo, Special staff of the Chairman of the Steering Committee of Badan Pembinaan Ideologi Pancasila (BPIP) (Pusdatin, 2020). In the international symposium on religious moderation organized by el-Bukhari Institute, Minister of Religion, Yaqut Cholil Qoumas said that the indicators of a person having a moderate religious understanding are a strong national commitment, religious tolerance, avoiding violence, and respecting local culture. (Effendi, 2022). From the four indicators, local cultural appreciation can be used as an entry point for an attitude of religious moderation to be instilled through learning mathematics. In addition, by respecting local culture, students can maintain its sustainability from the negative influences of foreign cultures (Desfriyati, Indah, Rustini, and Arifin, 2021).

The first step so that 6<sup>th</sup> grade students can appreciate local culture is to introduce it. In mathematics learning, the introduction is given when local culture

is used as a context in math story problems. There are four types of information in mathematical story problems, according to Strohmaier (2020), namely 1) information in context reflects a mathematical problem, 2) information in context is redundant or superficial, 3) the information contains many representations, and 4) involves surrounding context whose function can help solve mathematical problems. This means that context is an important part in building math story problems, because, according to the Cambridge dictionary, context is a situation that exists or occurs and it is used to clarify something. Meanwhile, according to Kamus Besar Bahasa Indonesia (KBBI), context is part of a description or sentence that can support or add clarity to meaning. By using context, students can realize the benefits of learning mathematics in everyday life or in other words, context can make learning mathematics meaningful (Kadir & Masi, 2014), make it easier for students to understand mathematics learning (Kurniawan & Susanti, 2021), and help students overcome difficulties in understanding the application of mathematics (Nova & Putra, 2022).

Therefore, this article discusses what kind of local culture wisdom can be used as context in math story problems. Because there is too much local culture in Indonesia, the scope limitation to be explored is local culture of South Sumatera province.

## **METHODS**

This study use library research with literature review as the method. The sources used in the review are documents from books, journal articles, and internet sites. The steps taken in this research procedure are extracted from the article Snyder (2019), namely, first, determine the topic and create questions from the problem to be studied. Second, search for literature according to the topic. Third, read articles or valid sources of information. Fourth, analyze the relevance of documents that become literature. Fifth, determine the key findings of the articles that are considered relevant. Sixth, write a synthesis of key findings with relevance to the topic being studied.

## **RESULTS AND DISCUSSION**

From the search results on the internet site, local culture in South Sumatra is recorded on the website of the Regional Research Development and Innovation Agency of the South Sumatra Provincial Government (<https://balitbangnovdasumsel.com/warisanbudaya/>). There are 20 recorded cultural heritages. One of them is *Pempek* traditional food. This traditional food can be used as context in math story problems by displaying the narrative on the website as the initial context. The narration is as follows:

*Pempek* has existed in Palembang since the time of Admiral Cheng Ho. At that time, he received orders from the King of China to crush the pirates on the Musi River by bringing 200 thousand soldiers consisting of Muslims, Catholics, Christians, and Buddhists. Most of the soldiers did not return to China, because they married a native Palembang woman, they had children and grandchildren, so they were of mixed descent. The name *pempek* or *empek-empek* is believed to have come from the term "*Apek*", which is the name for an old man of Chinese descent.

While another opinion, the name *pempek* comes from the way the food is made, namely a mixture of fish and sago "*dilepekan*" then formed as desired. The word "*dilepekan*" is then used as the name of the food, namely "*pempek*".

From the narration, a math story problem can be as follows:

Once upon a time in the present, an *Apek* sells 2 types of *pempek* in the elementary school canteen, namely *pempek keriting* and *pempek adaan*. He provides 50 *pempek keriting* and 70 *pempek adaan*. The price of 1 *pempek keriting* is IDR 1500.00 and the price of 1 *pempek adaan* is IDR 1000.00. If 30 students buy the 2 types of *pempek*, how many *pempek kriting* and *adaan* are eaten equally and fairly by each student, and how much rupiah do they have to pay? Explain your answers!

To solve these mathematical problems, the ability that students need to have is finding Least Common Multiple (LCM) from two integers and operating mixed fraction number. The ability to find LCM has been studied by students in grade 5 and the ability to operate mixed fraction numbers has been studied by students in grade 6 semester 1. This shows that the problem can be given to students at that level.

From the narration, the students were also inserting the values of religious moderation through the sentence "...crush the pirates on the Musi River by bringing 200 thousand soldiers consisting of Muslims, Catholics, Christians, and Buddhists." This narrative instills religious moderation in the form of an attitude of helping in virtue even though it is different in religion. To ensure that students are aware of the values of religious moderation contained in the narrative, questions can be made such as, in which sentences the values of goodness or virtue can be drawn from the given narrative. This question can be given after the math problem.

Another local cultural heritage from South Sumatra that can be used as a context is the *Tanggai* dance. The narration begins by telling the history of the dance as follows:

The *Tanggai* dance is one of the traditional dances originating from Palembang and developing throughout South Sumatra. In the 5th century AD, the *Tanggai* dance was an offering dance to God Shiva by bringing offerings containing fruit and a variety of flowers, because it served as an introductory offering dance, the *Tanggai* dance was categorized as a sacred dance at that time. It is called the *Tanggai* dance because each dancer uses *Tanggai* property on eight fingers, except for the thumb. *Tanggai* dance is a dance that uses *Tanggai* with emphasis on finger flexibility. Until now, *Tanggai* Dance is used to welcome dignitaries who come to Palembang, other official events and wedding receptions. This dance can be performed by 3, 5, 7 people.

From the narration, it is known that the dance used to official events, so math story problems can be as follows:

Once upon a time, an ibtidaiyah madrasa would be visited by a Mayor of Palembang in commemoration of Kartini's day. For this reason, the head of the madrasa appointed 7 students and a cultural arts teacher to

practice the *Tanggai* dance. For one week before the D-day, the length of time they did the exercise was recorded, namely as follows:

Day	Mon	Tue	Wed	Thurs	Fri	Satur	Sun
Time in minutes	120	150	100	120	100	120	150

From this data, how many hours do they exercise per day on average? and how much time do they usually spend exercising?

To solve these mathematical problems, the abilities that students need to have are converting time from minutes to hours, finding the average value, and operating mixed fraction numbers. The ability to convert time and operate mixed fraction numbers has been learned by students in grade 5. Meanwhile, the ability to find the average value is learned by students in grade 6 semester 2. This shows that these questions can be given to students at that level.

In the narration, it is also told that the *Tanggai* dance is a dance offering to God Shiva by bringing offerings containing fruit and various flowers. This means, through reading the initial narrative presented and prior to the math problem, students are indirectly introduced to people's beliefs in the past and still exist today with the hope that students appreciate the history of the *Tanggai* dance in order to preserve cultural heritage as well as to form a moderation attitude towards religion and beliefs in Indonesia.

From the two examples of context presentation above, the researcher identified that the first context contains two math concepts, while the second context contains three math concepts. From here, a teacher must connect mathematical concepts that involve content contained in the context and also need to create advanced narratives so that the initial narrative is connected with mathematical problems and becomes a unified narrative. It also can be seen that the values of religious moderation can only be instilled indirectly into students when integrated in mathematics learning. This means that a teacher can still have a role in cultivating the values of religious moderation to students, even though when students have thought about solving math problems, the information in the initial narrative is no longer needed or not very important in helping to solve mathematical problems. When the story problems are analyzed according to Strohmeier (2020), then the information in the context of the two math story questions above falls into the category of redundant information. This is also supported by the results of Afgani & Paradesa (2021) study which reports that students feel less interested in narrative math problems that are too long or have many explanations.

Meanwhile, the values of religious moderation can be directly instilled in the learning of Pancasila (Winata, Sudrajat, Yuniarsih & Zaqiah, 2020), Islamic Religion (Aziz, Muhammad, Anam, Nadjib, Muhtarom, Masykur, Marbawi, Muryono & Bashri, 2021; Anwar & Muhayati, 2021; Latif, 2022), Catholic Religion (Hatmoto & Mariani, 2022), or other religions. However, the results of Harmi's study (2022) reported that students' understanding of the values of religious moderation was still in the sufficient category, even though these values are directly integrated into Islamic religious learning. This is a "homework" for Islamic Religious Education

teachers to find a solution so that students' understanding becomes very good and manifested in their behavior and attitude.

## CONCLUSION

From the results of the study and discussion, the values of religious moderation can be integrated into math story problems using the context of local cultural wisdom, but indirectly. However, this article only relates two cultural heritages that are used as context in the narrative of math story problems. Therefore, it is necessary to conduct further studies of other cultural heritages and not only in South Sumatra to be investigated and used as context in math story problems. In addition, the authors suggest conducting empirical research, whether 6<sup>th</sup> grade students of ibtidaiyah madrasa are really aware of and embedded in the values of religious moderation when integrated in math story problems and still improve their mathematical abilities.

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