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ETNOMATHEMATICS: THE EXPLORATION OF PENCAK SILAT BLEBET BALI AND ITS RELEVANCE TO MATHEMATICS LEARNING IN SCHOOL

Diani Fitri[1*], Maswar Maswar[2], Muslimin Muslimin[3]

[1,2,3] Mathematics Education Study Program, Faculty of Tarbiyah, Ibrahimy University, Jl. KHR. Syamsul Arifin 1-2, Situbondo, Indonesia

ABSTRACT

This research is a qualitative descriptive research with ethnographic type. The subjects of this study were teachers, trainers and students of Pencak Silat Blebet Bali. This art is one of the arts of Pencak Silat which was very typical for the Balinese people, especially Pegayaman Village. This martial art was passed down from generation to generation from the ancestors in Pegayaman Village. The term Pencak Silat blebet has the meaning of meeting, friendship and famly. The rattan/blebet weapon used indicates that friendship and relations between religious communities continue to be in harmony and there is no division, as is the case with rattan/blebet which has a strong texture and is not easily damaged. The research instruments used were observation, interviews and documentation. The results of this study indicate that many mathematical concepts of geometry are contained in the Pencak Silat Blebet Bali. The mathematical concepts of geometry include: the concept of triangles, trapezoids, parallelogram, the relationship of lines and angles. These mathematical concepts are very relevant to be applied in realistic mathematics or contextual mathematics learning in elementary and junior high school classes.

Keywords: Etnomathematics; Pencak Silat Blebet; Mathematics Learning

1. Introduction

In human life and specially in the world of education today is very closely related to learning, especially learning mathematics. Learning can be interpreted as an effort to create conditions that allow students to learn or can be said to be a process of activities designed by teachers using various models, approaches, strategies, methods and special techniques to encourage students to learn actively, creatively, innovatively, produce something effective and in a pleasant atmosphere. This is in accordance with the 2003 Law number 20, which states that the purpose of education is to develop the potential of students so that they become believers and pious, have good health, are knowledgeable, have noble character, are independent, creative, capable, and democratic. (Ministry of National Education of the Republic of Indonesia, 2006). In other words, education is also sought to improve the quality of human life. Furthermore, students who are ready with 21st century competencies and skills will be able to face the challenges of a future where technological advances are increasingly rapid.

In this regard, teaching and learning activities also emphasize students' abilities related to 21st century skills, including increasing students' critical thinking. This ability is needed by students not only in learning at school, but in general it is also needed in getting solutions and solving problems encountered by students in everyday life. Therefore, students should be able to think critically so that they can find solutions to problems based on the information obtained. Increasing students' critical thinking can be pursued by teachers by implementing more innovative learning methods, so learning is not always carried out with the lecture method. One way is by contextual learning (Science, 2022).

One of the learning designs that can be considered to develop students' mathematical understanding and representation abilities is

*) Maswar
E-mail: maswar@ibrahimy.ac.id
Phone: +6281249269720

Contextual Teaching and Learning. As explained by Johnson (2007: 94) that contextual learning is a learning concept that helps teachers relate the material they teach to the real world of students and encourages students to make connections between their knowledge and its application in their daily lives. day. In addition, in its implementation, contextual learning involves seven components including constructivism, questioning, inquiry, learning community, modeling, reflection, and authentic assessment. (Sanjaya, 2006) in (Handayani, 2015).

According to NCTM, the objectives of learning mathematics have changed, no longer only emphasizing on improving learning outcomes, but are also expected to improve abilities: (1) mathematical communication, (2) mathematical reasoning, (3) mathematical problem solving, (4) linking mathematical ideas (mathematical connections), and (5) mathematical representation (Sakdiyah, 2019).

The application of learning based on components in contextual learning is expected to make mathematics learning more meaningful, more interesting and able to stimulate students so that it can have an influence on students' mathematical understanding and representation abilities and find out its usefulness. This kind of learning is very suitable for understanding students about mathematics because mathematics has a characteristic in its structure and mathematics is an exact and organized branch of science. Mathematics is formed as a result of human thinking related to ideas, processes, and reasoning. In people's lives, mathematics provides benefits and functions in various perspectives according to the needs of the people who use it and can be studied in various aspects. Mathematics is closely related to the culture of society that is attached to people's lives so that mathematics can be used to solve community problems in contextual daily life.

Ethnomathematics as a contextual learning medium has been widely tried to be applied by educators to teach mathematics to students so that it is not only limited to theory, but directly uses concrete activities or phenomena found in everyday learning environments. This is because, textually, students sometimes find it difficult to understand mathematics conceptually and abstractly. Through this ethnomathematics, learning will stimulate students to think concretely in contextual-based problems, thus encouraging students to think critically, creatively and innovatively. Because it integrates mathematics, social activities, arts and culture. (Tohir, Maswar, Moh, Saiful, & Rizki Pradita, 2020), there are three reasons why students' thinking processes can be said to be interesting; (1) students do not always logically express their thinking processes; (2) although the students do not seem to understand the mathematical concepts, it is possible that they have knowledge in the thought process; (3) the process of identifying conceptual problems experienced by students in trying to understand a knowledge can be a difficult thing to do, especially when they are thinking about abstract things.

With regard to ethnomathematics as part of the study of mathematics. D'Ambrosio (1985) and Orey & Rosa (2006) in (Apriyono, 2021), state that ethnomathematics comes from the word "ethnomathematics" which consists of three syllables, namely 'ethno' which means related to culture, mathema related to mathematical activities and ethnomathematics. 'tics' which means art or technique. So, if summarized, ethnomathematics means a science that studies the art of mathematics in various human cultural activities. Ethnomathematics is an intersection of the fields of cultural anthropology, mathematics, and modeling that have relevance in pedagogic activities.

Ethnomathematics tries to bridge the gap between mathematics education and culture. This makes it clear that mathematics and culture have a very close relationship, mathematics is born from a culture and can also be extracted from culture. Mathematics in culture can be seen from the various mathematical activities that the culture has. Ethnomathematics is an ethnographic study that results from the interaction of humans with their culture. Not only that, even in every hipping activity, ethnomathematics can be explored, such as those found in prayer movements, dance movements, pencak silat movements and so on.

The role of ethnomathematics in this project based learning model, students can recognize and use connections between mathematical ideas in solving project problems, linking mathematical and mathematical ideas with disciplines outside mathematics, and mathematics with the real world in everyday life. In learning, projects related to local culture are carried out. For example in the circle material, students can make projects such as tamas or tempeh which are one of the cultures that exist in their environment (Balinese culture). The tamas and tempeh contain mathematical elements

in the form of diameter, radius, arc, area and circumference of a circle. (Mahendra, 2017).

The application of art and culture-based mathematics learning is expected to be able to attract the interest and enthusiasm of students to understand mathematics learning materials in schools well. As in the art of pencak silat which in its movement is related to several concepts/contains mathematical elements that can be used as teaching materials/media in learning mathematics. Pencak silat is one of the Indonesian cultures that grew and developed for the first time in the Malay plains during the royal era in Indonesia (formerly Nusantara) which in its performances used punches and kicks. This martial art is also spread and widely known in Southeast Asia. such as Malaysia, Brunei Darussalam, Singapore, Southern Philippines and Southern Thailand. Pencak silat is a self-defense sport that requires a lot of concentration. There is influence of Chinese culture, Hinduism, Buddhism, and Islam in pencak silat. In Indonesia, there are many schools of pencak silat which show that Indonesia is rich in culture with the values that exist in it. One of the schools of pencak silat in Indonesia is the Brotherhood of Faithful Heart Terate (PSHT) which existed in Indonesia before Indonesia's independence. According to (Suhartono, 2011), pencak silat is also known as a typical Indonesian martial culture in which there are 4 aspects of coaching that are of very high value, namely mental and spiritual aspects, arts, self-defense and sports. Pencak silat puts forward the rules and beauty of the movement which is part of the artistic aspect. Likewise with blebet pencak silat in Pegayaman Village, Bali, in which there is a very strong spiritual value. The art movement is also very concerned about the direction, how to step, position, how to play the blebet, and the pattern of steps taken, so as to create an ideal movement accompanied by the beat of a tambourine that creates the beauty of art. In this case, the fighter is required to understand how to move in good silat, and to maintain harmony between the accompaniment of the tambourine beat and the appropriate movement. This knowledge can be obtained by constant practice.

The martial art of *Pencak Silat* (Martial Arts) in Pegayaman Village, Bali is different from the martial art of pencak silat in other areas because in the performance this martial art is combined with a tool called a blebet. Blebet is another word for rattan. Blebet in pencak silat Pegayaman is the main weapon in the performance of pencak silat and playing blebet is the key to kill the opponent. The martial art of pencak silat blebet is an art that is an ancestral heritage as a manifestation of acculturation of Islamic culture with Hinduism. The very unique thing about this martial art of pencak silat blebet lies in the techniques and facilities used in the performance of the blebet pencak silat art.

In the performance, this martial art is accompanied by the beat of a tambourine whose song lyrics use Arabic which is sourced from the al-Barzanji book and the bars are based on Balinese kidung. Pencak blebet is one of the Indonesian cultures that grows and develops in the largest Muslim village on the island of Bali, namely Pegayaman Village. This art was founded since the Dutch colonial era with the aim of gathering the strength of the younger generation as a bulwark to defend the struggle against the Dutch and a village fort.

Pencak Silat Blebet Bali was formerly known as Rodat/hadrah which in its movement and steps was a martial sport movement such as silat and pencak because during colonial times building special martial arts organizations was prohibited. Therefore, the Muslim and Hindu communities work together to anticipate this Pencak Silat in such a way that it is not recognized as a self-defense movement but is better known as the local arts of the Balinese Pengayaman Village community.

Based on this explanation, it is clear that *Pencak Silat* (Martial Arts) has very high artistic and socio-cultural values as well as knowledge and learning values. These values can make the fighter have a high artistic spirit and a social spirit that makes the fighter closer to the surrounding environment. This is related to the learning function in schools, namely the ability of students to implement the knowledge gained in everyday life.

Through the above explanation, it becomes important to conduct exploratory research regarding the ethnomathematics of *Pencak Silat Blebet Bali* and reveal its relation to learning mathematics. This is because the art of pencak silat is a very unique art and has a very high value both physically, spiritually, and scientifically.

The novelty of this research is to introduce to the public the Balinese Pencak Silat Art and reveal the ethnomathematics contained in the Pencak Silat art. This is a type of martial art inherited from the ancestors that regenerates and becomes a culture inherent in Muslim and Hindu

communities with the aim of strengthening the value of affection between religious communities, strengthening kinship/brotherhood between fellow members, and strengthening family relations as a nationalist archipelago society in the context of strengthen the value of unity and unity.

2. Research Methods

The research approach used is descriptive qualitative, specifically ethnographic, namely the type of research used in the field of cultural anthropology. In general, the ethnographic approach makes observations in the form of participation as part of field research. In qualitative research, the instrument or research tool is the researcher himself or it can be said that the researcher is the key instrument. Research data collection methods are: observation, interviews and documentation. The observation method is used to collect initial information directly to find out detailed information regarding the existence of pencak silat, and its sources. Then, the interview method was used to gather information during the research, which was conducted on the main sources, namely trainers, members of Blebet Pencak Silat, as well as Muslim and Hindu leaders in Pengayaman Village, Bali. Furthermore, the documentation method is used to collect research data related to the exploration of mathematical concepts or elements contained in the art of pencak silat.

3. Results and Discussion

The information obtained by the researcher is about Balinese cultural arts. The informant explained that Balinese culture is essentially based on values derived from the teachings of the Hindu religion. This Hindu teaching is then transformed into local wisdom in the social customs of humanity on the island. One of the most distinctive cultural arts on the island of Bali is pencak silat blebet which is a martial art typical of Pegayaman Village. This blebet martial arts is a hereditary heritage from the ancestors of Pegayaman Village.

The term *Pencak Silat Blebet Bali* has the meaning of meeting, friendship and friendship. The rattan/blebet weapon used indicates that friendship and relations between fellow religious people continue to be in harmony and there is no division, as is the case with rattan/blebet which has a strong texture and is not easily damaged. Pencak silat blebet is closely related to the duties of the ancestors of the Pegayaman village in the past as tough soldiers from the Buleleng kingdom, under the leadership of Ki Barak Panji Sakti. As royal soldiers, guardians of the region in the southern part of Buleleng, their ancestors gave birth to very strong and powerful martial arts. Using a weapon called a blebet, a kind of stick made of rattan.

The functions of *Pencak Silat Blebet Bali* include as self-guard, as a means to strengthen brotherhood between religious people, as a sport that is very good for body health and also as an entertainment to create happiness and excitement. In addition, this blebet pencak silat aims to protect the village from enemy attacks. This blebet pencak silat is very different from other pencak silat both in terms of the tools used and in terms of movement.

In its movement, this Balinese of *Pencak Silat Blebet* has its own characteristics with unique movement names such as nyingkul turmeric and researching pillows. There are several schools in this Pencak Silat Blebet but over time, these schools have been forgotten and there are only a few blebet pencak silat schools that still survive to this day, namely *Pencak Silat Bunga* and *Pencak Silat Belebet Bali*.

In terms of physical movement, this *Pencak Silat Blebet Bali* is quite hard, if you parry it wrong, of course blood can flow. Therefore, this art is not easily passed on to just anyone. In passing on this martial arts, the trainer has certain rules, namely, they must have good manners, have a calm soul so that they can control their emotions, and have a high discipline attitude. In addition, to get this martial arts must perform special rituals as a form of respect for teachers and knowledge. The ritual is called kinangan.

Kinangan in language means giving while in terms it means giving a student to his teacher as a sign / form of respect for the teacher and the knowledge given so that the knowledge can be embedded in a student and benefit society. The kinangan contains, among others: 1) Prestige and gambier function to make the knowledge gained stronger/sharp, 2) Needle and thread function to have a strong memory, 3) Coconut oil which is smeared all over the body of a student serves to make the body weak so that it is easy to perform this martial arts movement, 4) the eleven colored flowers function so that all the movements carried out can attract the hearts of those who see it, 5) the water you drink serves as a sedative / antidote to keep yourself in control of your emotions.

In the performance, the fighters wear special costumes. This art is accompanied by a

burdah performance, namely the musical art of kasidahan typical of Pegayaman Village which uses a large tambourine as an accompaniment to the beat and is also accompanied by chants as shalawat, whose lyrics are taken from the holy verses of Surat Albarjanzi, in Arabic. A silat player in his performance has certain manners starting from going to the show until the end of the show. Before the fight a player must perform ablution 'first as one of the inner rituals to protect themselves from danger, then read fatihah to the ancestors, read the shahada and istighfar.

Furthermore, when the battle begins a player reads a certain prayer on the condition that he must not have a sense of pride in his heart, besides that a player must be able to control his emotions so that after the fight it does not result in hostility even though during the fight friends who become opponents are considered enemies. And ended with a handshake as a sign of friendship. In addition, the fighter reads the verses of the Qur'an so that nothing dangerous happens.

This Balinese martial art of *Pencak Silat Blebet* has thirty-six movements which are divided into several movements, including respect as an initial movement, opening a step or development, guarding/attacking which is divided into six movements, including upper punch, lower punch, half punch, burst, stabbing. , and slashing, then striking/parrying movements include leg breaking, stabbing, receiving stabs, and bursts. In this martial art, the blebet movement is very important because it is the key to this martial art. In addition to creating beauty in his movements, this blebet movement must be mastered so that the opponent does not find his weak point. When viewed directly, it will be seen that the majority of the movements are in the hand and blebet movements of the fighter, but the leg movements also greatly affect the strength of the fighter. Therefore, this martial art requires a fighter who is strong physically and mentally because it is a martial art that relies on body agility and also as an ancestral heritage that has high values both in terms of mental, spiritual, art, martial arts and sports.

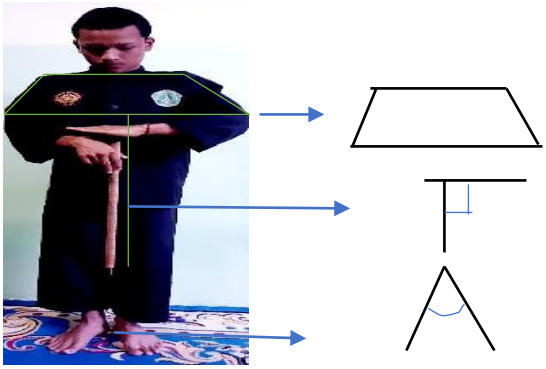

Figure 1. The Respect Movement

The picture above is a gesture of respect for the blebet pencak silat art demonstration with the left hand holding the blebet and the right hand folded in front of the chest. Based on the picture, ethnomathematical findings were obtained from the hand position, blebet position, and foot position of the fighter. In the hands form a trapezoidal flat shape. While the position of the blebet which is straight down and the hand that is folded, if a straight vertical line is drawn from the blebet and a horizontal line is drawn from the hand that is folded, it will produce two perpendicular and intersecting lines, and form a right angle. Then, in the position of the foot when a guide line is given between the two positions of the left and right feet, it will form an acute angle.

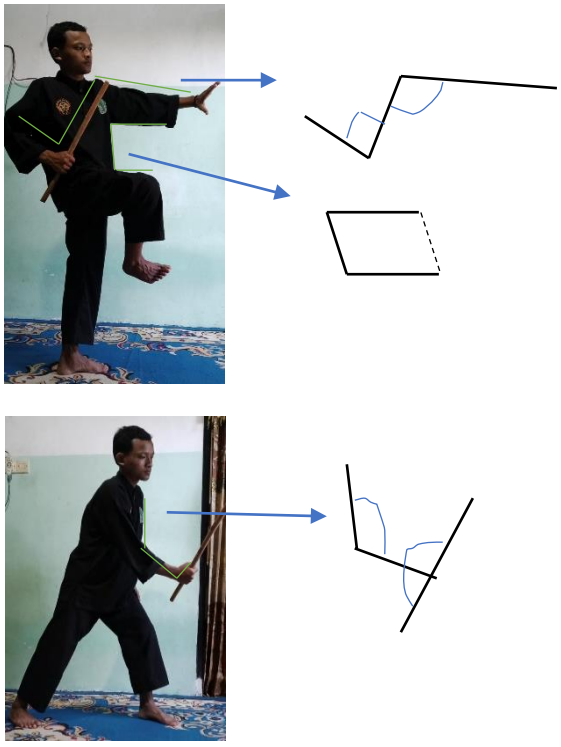

Figure 2. The Movement Opening Step

The movement of opening steps is a basic technique in pencak silat as a foundation for defending or carrying out attacks. In this movement the legs open and the blebet points forward to form an obtuse triangle or form a 180 degree angle which is divided into 2 parts, an obtuse angle and an acute angle. Next the right leg rises so that the thigh is parallel. While the left leg is straight. The blebet position is on the right side and the left hand is straight ahead.

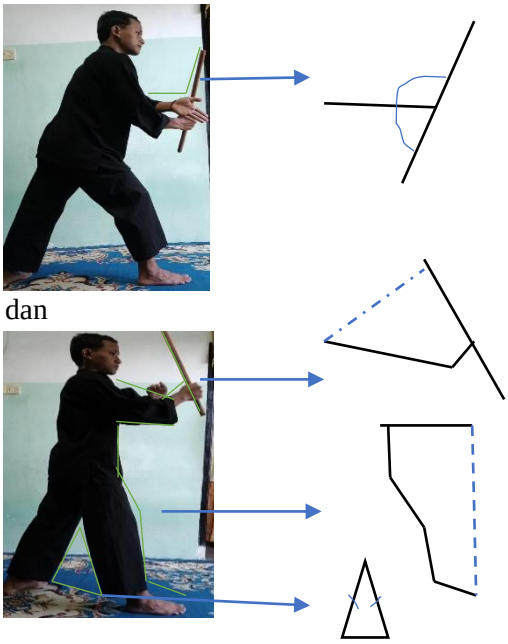

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Figure 3. The Attacking Movement Upper Punch Technique

The first attack technique is the top punch technique. This blow is an attack on the upper body, namely the neck. Mathematical explorations contained in this movement include: the intersection of two lines, right angles, acute angles, obtuse angles, trapezoidal shapes, and isosceles triangles.

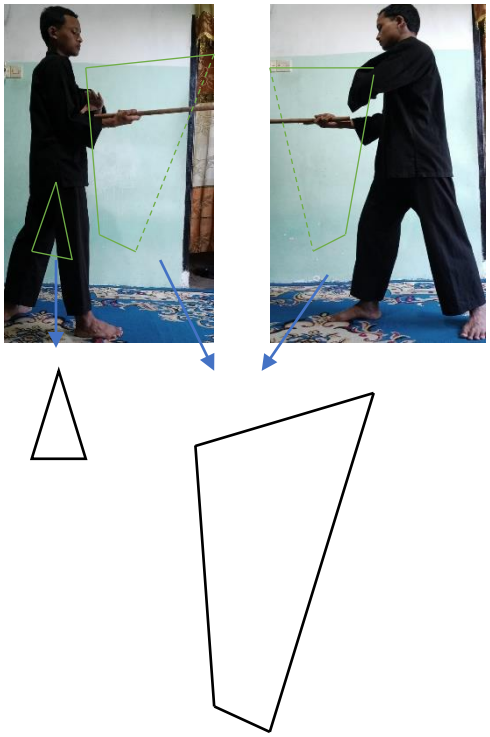

Figure 4. The Middle Stroke Attacking Movement

This blow is an attack to attack the body in the abdomen. In this movement there are concepts or mathematical elements of isosceles triangle geometry, a combination of arbitrary triangles and trapezoids.

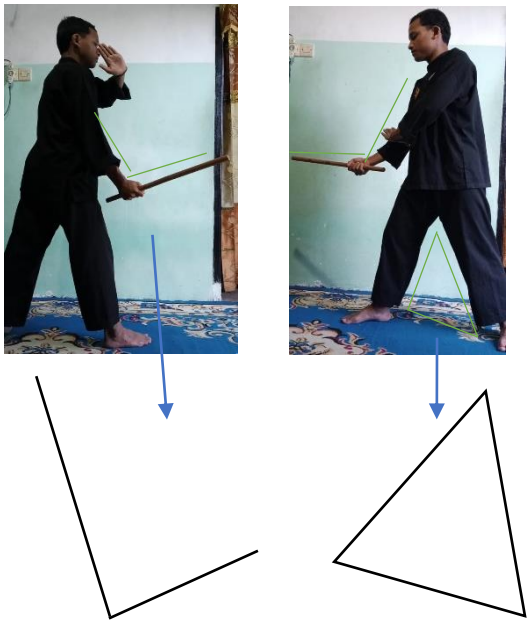

Figure 5. The Down Kick Attacking Movement

This punch is to attack the lower body, namely the thighs and legs. In this movement there

are mathematical concepts or elements of arbitrary triangles, lines and right angles.

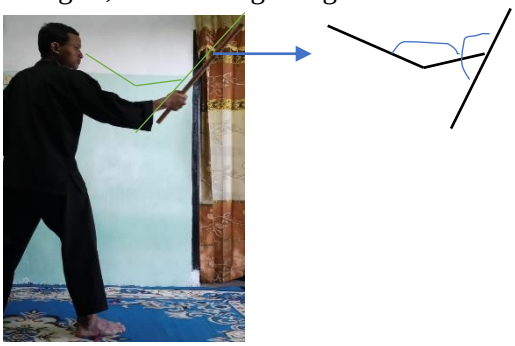

Figure 6. Slashing and Slashing Technique Attacking Movement

This technique is a hard hit from top to bottom as an attack to bring down the opponent. While the slashing movement is an attack movement technique to attack the body part of the arm.

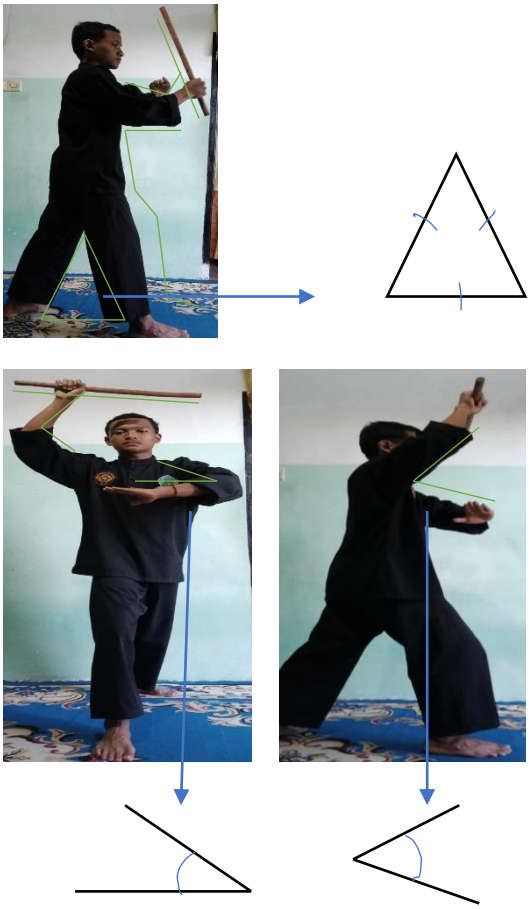

Figure 7. The Parry Movement

Parry movement is a defense movement in order to avoid / stem the opponent's attack. Blebet in this movement serves to fend off the opponent's attack where the position of the blebet is above the head or in front of the face and the other hand is in front of the chest. While the legs still form a horse.

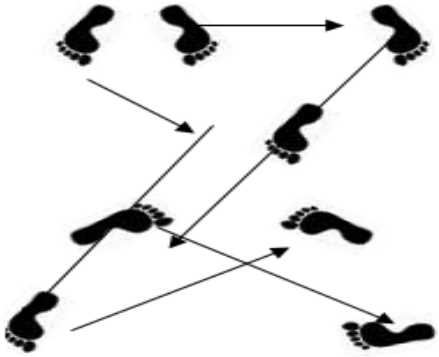

Figure 8. The Complex Movement of Balinese Blebet Pencak Silat Step Patterns

In a complex manner, the movement of respect to the rare movements of hitting, attacking and parrying can be seen in the pattern of steps of the Balinese Blebet Pencak Silat movement. The step pattern as the initial demonstration of the blebet pencak silat movement begins with a salute movement, where the fighter's feet point to the right side and the front left side. then the position of the fighter's right foot moves straight ahead and the left foot behind by tilting it to the left side. Next, the right leg is lifted while the left leg is perpendicular as a pedestal with the left leg tilted. It ends with the position of the raised leg rotating 90 degrees followed by a rotation of the right foot behind it.

Based on the observations of researchers regarding blebet pencak silat, in this blebet pencak silat art not only has a very sacred and unique history but there is also a mathematical practice in this blebet pencak silat art. The mathematical practice that can be found in this art is in the pattern of the early demonstration steps of the art of blebet pencak silat which found several ethnomathematical findings.

In the initial step pattern, namely the reverence movement, first there is a mathematical element in the position of the feet that form a flat triangle. In the oblique position of the front left and right legs, if a line is drawn between the two legs, a flat triangle will be formed. Second, in the opening movement when the right foot steps forward and the left foot behind, if a line is drawn from each heel with a horizontal line on the left foot and a vertical line on the right foot, the two lines will meet to produce two mutually exclusive lines. intersect. Third, then when the right foot is

lifted so that it forms a right angle and the left foot is pointing to the left oblique, if a line is drawn from the two heels it will produce two lines that cross each other. Fourth, in the last stage of the initial demonstration before starting the attack, the right foot which was originally raised, rotates 90 〗 ^o followed by a rotation of the left foot, then both feet face forward, if a horizontal line is drawn from each leg, it will form two parallel lines.

The rapid development of the times is in line with the development of educational technology, where the educational curriculum demands cultural involvement in learning in schools with the aim that students can become a generation of character while at the same time fostering a sense of love for local culture which has been abandoned due to technological advances, able to maintain and preserve culture, and can understand the importance of cultural values in everyday life.

In connection with the above problems, ethnomathematics is a relevant solution in integrating science, technology, art, culture and mathematics. learning mathematics is not only how to be able to understand and answer questions, but also be able to understand and interpret daily self activities and the activities of others in the surrounding environment such as movements in prayer activities, dakon game activities, marbles games, farmer activities when planting rice, and the movements found in the traditional dances of the Indonesian people, the Nusantara pencak silat movement, and understanding historical monuments such as Borubudur Temple, Dieng Temple, Setinggil Temple, and so on.

There are many historical treasures of the archipelago that need to be introduced to the public in their own country and other countries in the world. However, ethnomathematics is only relevant for learning mathematics in the realm of School Mathematics, and describes the findings as follows: Ethnomathematics-based learning in mathematics is in harmony with the nature of school mathematics, among others: mathematics as an activity of tracing patterns and relationships, mathematics as creativity that requires imagination, mathematics as problem solving activities (problem solving), mathematics as a communication tool (Marsigit, Condromukti, Setiana, & Hardiarti, 2014).

Ethnomathematical-based mathematics learning is in line with the nature of students learning mathematics for students in school institutions, then this study shows the existence of geometrical mathematical concepts or elements contained in the blebet martial arts culture of Pegayaman Village, Bali. Among these concepts are the concept of angles, the concept of lines, the concept of flat shapes, the concept of the relationship between angles and lines, and the concept of the relationship between flat shapes. One concept is interrelated with other mathematical concepts, when studying angles cannot be separated from lines, as well as when studying flat shapes cannot be separated from lines and angles.

Through this contextual learning of *Balinese Pencak Silat Blebet* ethnomathematics, of course there are many concepts of lines and angles that can be taught to students. For example, the intersection of two lines that form an acute angle, a right angle, an obtuse angle, reflex and reflex. The specifics can be seen in the table below!

Table 1. The Angle Types

No	Interval	Angle Types
1	$0^o \leq \theta < 90^o$	Acute angle
2	$\theta = 90^o$	Right angle
3	$90^o < \theta < 180^o$	Obtuse angle
4	$\theta = 180^o$	Straightangle
5	$180^o < \theta < 360^o$	Reflex angle
6	$\theta = 360^o$	Full rotation angle

In addition to the concepts of lines and angles, in the ethnomathematics of Pencak Silat Blebet Bali, there are also other concepts related to geometrical geometry. These concepts include: 1) The concept of an isosceles triangle, an equilateral triangle, an arbitrary triangle, 2) The concept of a parallelogram, and 3) The concept of an isosceles trapezoid, a right trapezoid and an arbitrary trapezoid.

From the content of several elements or mathematical concepts as already mentioned, this shows that the ethnomathematics of Pencak Silat Blebet Bali has a relationship with mathematical concepts that can be integrated in learning mathematics at the elementary and middle school levels.

Through the application of Balinese Pencak Silat Blebet ethnomathematics in learning mathematics at school, it is hoped that it can provide a new atmosphere/feel during the teaching and learning process based on contextual problems, and of course to stimulate students to enjoy learning mathematics in a more interesting and fun way, so that encourage students to think and be positive about mathematics. This is

relevant to what was conveyed by (Maswar, 2019) that learning in mathematics class being comfortable, and not rigid can stimulate students to be interested in learning mathematics and stimulate their brains to think creatively. Learning becomes entertained, and students' perceptions of mathematics which have been negative because they are seen as complicated, elaborate, too serious and boring become positive perceptions that mathematics is fun, easy, has many benefits, is entertaining and fun.

Not only that, through ethnomathematics, educators can introduce students and invite them to interact directly with local arts and culture. This action will be very useful both in the world of mathematics education and in growing a love for local arts and culture or the culture of the archipelago, which is a unique property of the Indonesian nation. This is in line with what was conveyed by Booker et al in (Ranti, 2022) that elements of local wisdom need to be developed to introduce and maintain the preservation of local culture. The involvement of elements of local wisdom in learning mathematics can be done by bringing the content of mathematics closer to things that are unique and contain cultural values in everyday life. Mathematics itself as a discipline consists of concepts that will be more effectively discussed with fluency in academic language. Academic language in learning mathematics includes special words or phrases that are in accordance with the content, procedures, learning activities, complex statements of thinking activities.

4. Conclusions

Based on the results of the research that have been analyzed and discussed, it can be concluded that *Pencak Silat Blebet Bali* contains the value of affection, the value of friendship and kinship / kinship which is very strong between each other. In addition, in this Pencak Silat there are several mathematical concepts, namely the concept of lines and angles, the concept of flat triangles, parallelograms and trapezoids. These concepts can be observed in every Blebet Pencak Silat movement, including: 1) The concept of lines and angles is found in the movement of respect, the movement of opening steps, the movement of attacking and also the movement of parrying. The strength of the attacking and parrying punches depends on how big the angle is in the movement of the hands and feet, 2) The concept of a trapezoidal flat shape is found in the salute movement, the attacking movement of the upper stroke technique, and the middle punch technique, 3) The parallelogram concept is found in the opening movement. steps, and 4) The concept of a triangular flat shape is found in every movement, both in respecting, opening steps, and attacking and parrying movements. The results of mathematical exploration in Pencak Silat are very relevant to learning mathematics in primary and secondary schools when used as contextual or realistic learning media. In addition, the use of ethnomathematical media in learning mathematics can provide a new atmosphere/feel during the learning process that introduces and invites students to interact with local culture and can increase a sense of love for the arts and ancestral culture in Indonesia.

Based on the results of the research, discussion and conclusions, there are several suggestions for researchers or educators in elementary and secondary schools who want to apply ethnomathematical-based mathematics learning, especially on the subject of lines, angles, and flat shapes should use contextual problems and use ethnomathematics of *Pencak Silat Blebet Bali* or other Ethnomathematics that are still relevant to the material discussed.

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