# PASSION OF MATHEMATICS IN CHARACTER EDUCATION BASED ON LOCAL WISDOM OF DOLALAK

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#### **ABSTRACT**

Mathematics builds the human mindset so that it can master technology. However, mastery of technology without good character will bring disaster. So, in order for technology to be exploited wisely, it needs to build good character too. The purpose of this article is to describe the integration of character education based on local wisdom Dolalak art in learning to increase students' interest in mathematics. The conclusion obtained that the learning of mathematics can be taught in a fun way by using the approach of local wisdom that also simultaneously build the character of the students. At the planning stage, character education based on local wisdom is incorporated into the learning implementation plan. In the implementation stage, mathematics learning is done by performing Dolalak dance. In the evaluation phase of mathematics learning with character education is done by using art elements in dolalak dance in the matter.

**Keywords:** *local wisdom, mathematics, character education.* 

## **INTRODUCTION**

In 2009, has begun proclaimed character education movement. Character education is defined as the values embodied in the real everyday behavior. Character education is a source of religious norms, ethics, customs, culture, and laws. Character education has been developed through religious education, citizenship education, intra-curricular activities and extracurricular activities, such as scouts or nature lovers. Efforts to grow the character has started from the family and society, such as courtesy, honest, or responsible. However, these efforts have not yet seen the impact in everyday life. The character of today's young generation's weak, prompting the government to systematically integrate character education in all aspects of educational activities, such as learning activities, school and extracurricular culture. Implementation of character education in schools should be relying on the basic character values that subsequently developed into values more or higher according to the needs, conditions and school environment. Basic human character consists of: trustworthy, respect and attention, caring, honesty, responsibility, citizenship, honesty, courageous, diligent, disciplined, visionary, fairness, and integrity.

Character is developed through the stages of knowledge, implementation, and habits. Characters are not limited to knowledge, for example, someone who has knowledge of goodness, not necessarily the person is able to act in accordance with the knowledge, if not trained to perform such kindness. Thus the required three components of good character such as knowledge about morals, feelings about moral and immoral deeds(Depdikbud,2010). Moral knowing include moral awareness, knowledge of moral values, the determination of the angle of view, the logic of moral courage to take a stand, and the introduction of self. Moral feeling is strengthening the emotional aspects of learners to be human character. This strengthening relates to other forms of attitude that must be felt by learners, the awareness of self, confidence, sensitivity to the suffering of others, love of truth, self-control, humility. Moral action is aact or action moral which is the result of two components of the other characters. Aspects that encourage someone to do good are competence, desires, and habits.

Character development tends to be realized in religious studies and citizenship lessons. However, at this time began to be integrated character education in all subjects including mathematics. Mathematics is a universal science that underlies the modern development has an important role in a variety of disciplines and promote the power of human thought. To dominate and create future technology required a strong mastery of math early on. In order to equip learners to become a ruler of a technology capable of utilizing his knowledge properly and wisely, then in addition to equip the cognitive mastery, it is also necessary character formation of students. The main characters for mathematics include logical thinking, critical, hard work, curiosity, independence, confidence.

Mathematics can never be separated from one's routine. Activities undertaken since waking up to going to sleep again, much to do with mathematics. For example, using a blanket folded fold symmetry concept, making breakfast using measurement concepts, and when looking at the weather forecast using the concept of chance. Therefore, learning math become a necessity for someone. Concepts in mathematics help a person in solving everyday problems. Unfortunately, the actual mathematics very close to the daily, in learning is rarely associated with everyday life. This leads to the perception that mathematics is a science that is less than helpful, so the interest in mathematics is low. Currently it has developed several learning approaches linking mathematics to

everyday life, such as realistic mathematicseducation and contextualteaching andlearning. Through this approach is expected to increase students' interest towards mathematics. Thus, students will be more motivated to learn and use mathematics to solve everyday problems. Thus, the learning of mathematics necessary to build the character of students by using the value of local wisdom.

One's daily life is closely related to customs and habits of the area where he lives. Customs and habits contains the values of local wisdom that needs to be preserved. The values of local wisdom at this time have passed into history as the development time. Many students assume that local wisdom is something that no longer correspond ancient in modern times. Whereas the value of local wisdom has identity or characteristic of a person fit the area where he lived or originated. The value of local wisdom contained in any culture, customs, andtradition for generations becomes the basis for the development of the neighborhood and realized in a legacyculture. The value of local wisdom also becomes the foundation for the community, so that the character of a society can be built and built by cultural customs in a region through local wisdom in it. Therefore, the cultural heritage should be preserved and maintained as well as possible. one of which is the area of art. One area of art contained in Purworejo is Dolalak dance. This dance performance is an alternative entertainment for the community Purworejo. This dance is a dance typical of Purworejo created the Dutch colonial period. In this dance contains values that can be used to build the character of students. Thus, how the integration of character education based on local wisdom art Dolalak in learning to enhance students' interest towards mathematics?

## **METHODS**

This type of research is a libraryresearch, the research conducted by reviewing the relevant literature research issues in order to obtain the data needed to answer the problem. The literature reviewed in this paper is about character education, local wisdom, arts Dolalak, and learning ofmathematics.

#### RESULTS AND DISCUSSION

The human life is surrounded by the culture because people are always working to maintain its existence in life. The formation process of the centuries-old culture and tested so as to form a powerful component called 'identity. Inside the identity contained local wisdom that should be knitted in one unity of culture to realize a nation. Culture was born thousands of years ago since humans have existed on Earth. Like a habit that has become and shape human behavior are inherited from one generation to the next. Etymologically, culture is a product of human reason. Culture is closely associated with the community. Rise of globalization, modernization and tight puritanism feared could result in erosion of a sense of love and respect the local culture. Local culture is a heritage to be trampled and eliminated by a foreign culture and forgotten by the future generations. Though local culture in the area no less competitive with foreign cultures. The local culture is a culture that is highly valued by indigenous peoples. The existence of culture in order to remain strong, it needs to be instilled love for local culture, especially in the regions. The local cultural values of local wisdom that can build one's character. Local wisdom is the accumulation of wisdom and policies that grow and thrive in a community. Local wisdom can be used in character education.

Character education is a system of cultivation of character values to the community, school which includes knowledge, awareness or volition, and actions to implement these values, either against the Almighty God, ourselves, others, the environment, and nationality to become human perfect man. In character education in schools, stakeholders must be involved, including educational components itself, namely the content of the curriculum, learning and assessment, quality of relationships, handling or management subjects, school management, the implementation of activities, empowerment of infrastructure, finance, and ethics all citizens work and school environments. Characters are values of human behavior associated with the Almighty God, ourselves, our fellow human beings, environment and nationality embodied in thoughts, attitudes, feelings, words, and actions based on religious norms, laws, manners, culture and customs. Character is a representation of the identity of someone who shows his obedience to rules or prevailing moral standards and reflect the thoughts, feelings and inner attitude that is reflected in the habit of talking, acting, and acting. Character education can be interpreted as an effort to encourage students to grow and develop the competence of thinking and sticking to moral principles in life and have the courage to do right, although faced with various challenges. Character education is not limited to the transfer of knowledge about good values, but reaching out how to ensure

that these values remain embedded and integrated in thought and action. Efforts to build a character based on local wisdom through education from an early age is considered as an appropriate step. Schools are formal institutions that become the foundation stone of education. Education in schools is part of a national education system that has a very important role in improving human resources. It is important underlying character education in schools is an investment value of the nation's character will not make it through the provision of information and mere doctrine.

National character virtuous, polite, amicable, mutual cooperation, discipline, obey the rules and regulations and so on, need to habituation andmethods exemplary of all the elements of education in schools. All education stakeholders are expected to run things in a real contribution to the preservation of local culture in the area. It is therefore necessary strategic steps to increase love and care for the local cultural wisdom. Based on the understanding of local wisdom by Sumintarsih (Sartini,2004), we can see a culture can become Local wisdom if: (1) Only in a particular area, (2) The form of customs, (3) Petatah-proverb, (4) to be art that has been around a long time, (5) Can be semboyang life, and (6) cite this as a matter of life of local communities. So referring to the two senses of values and local wisdom can be briefly defined action guidelines andbehave in a particular culture (local culture) can be customcustoms or art as a characteristic of a region.

One of the local culture contained in Purworejo is dolalak. Dolalak a typical dance Purworejo. The dance was created by the Dutch colonial period since about 85 years ago. Dolalak name itself is taken from the notation dominant tone of do-la-lasung by Dutch soldiers to dance their dance. Whenwas first created, the dance Dolalak not accompanied by equipmentmusical instruments, but using a song sung by theretinue. SongsContainingsung-track appeal againstlife, in the form of poetry and is also derived from the Qur'an. Poem in these songs about religion-themed social satire, joy and life advice there is also a romantic nuances expressed with rhymes or parikan. The contents of poetry and rhyme created are a mixture of Javanese and simple Indonesian. The singing is performed alternately or sometimes together. Original music is only acapella, but in its development is accompanied by songs and songs and accompaniment of Javanese solawat and equipped also with drum, drums, flying, kecer and organs. The music is a variety of vocal "take" as the opening song to song or rhyme parikan using

old Malay language and some of the Java language and even Arabic. Even now entered also tracks the type of pop, dangdut and campursari.

Dolalak traditional fashion using clothing, the withdrawal of Dutch soldiers namely clothing long sleeve blackwith the rank on his shoulders and black shorts with pleats "untu walang" on the edge. Golden accessories used on the chest and back plus a black baseball cap with a decorative, leggings, firing a weapon dutch, and sunglasses. But this time be modified in the first shorts above the knee to below the knee. Even some that the modified style veiled Muslim but its accessories remain the same. Wearing short "sampur" tied on the right course.

Dolalak dance movement is a movement dominated by the military and dynamic motion rampak almost like the movement of martial refined. Movement "kirig" (a fast shoulder movement at certain moments) is a hallmark of dolalak that are not found in other dances. Dolalak dance is divided into three parts: dance groups, dance couples, and solo dance. In dance there are various terms such as footwork (adeg, pose, hoyog, sered, mancat, gejug, tiptoe, ngentrik, ngetol, engklel, sing, ngetol, pencik, kesutan, sampok, jengkeng and football). Gestures (ngruji, taweng, ngregem, malangkerik, ukel, ukel Wolak-walik, tepis, jentus, keplok, enthang, siak, kesutan grodha, miwir sampur, ngithir sampur, bapangan Wolak-walik, atur-atur, cathok, mbandhul, cakilan and tangkisan). Gestures / body (ogek, entrag, and geblag). The motion of the neck (tolehan, lilingan and coklekan) motion of the shoulder (kirig and kedher). Dolalak dance was originally danced by the male dancers. But in its development, since 1976 Dolalak danced byfemale dancers. Dance Arts Dolalak growand thrive in Kaliharjo village, subdistrict. Kaligesing, Purworejo, Java. Central Dolalak as local intangible culturalart and certainly created by man in it has values, dance arts and their Dolalak in itas local wisdom contained in Purworejo.

Purworejo has made the art of dance Dolalak asTypical featured original art Purworejo region. In line with Castelthat the characteristics of this culture must also mempunayai particularities and certain characteristics are used as markers of identity or identity a community or society. The cultural identity is deliberately formed or constructed by them (Abdullah, 2008: 40). Dance Arts Dolalak contains the value message to be conveyed, include: (1) The value of morality Godhead. (2) The value of social morality or or community. (3). The value of character education. (4) Aesthetic or

beauty value. Belief is a sign value obedient servantto his Lord. Then social or societal value is the value in the life of the community is certainly in accordance with thenorms / values apply. The third is the value of manners / norm politemannered, who teaches human values have mutual appreciate and respect. The last is value, the aesthetic which is useful as a means of entertainment for the public to be the values containeddelivered and adds to people's love of local culture. The function of the value contained in the dance arts Dolalak is as(1) As a means of imbuing and closer to God. (2) Reinforcement of social interaction that exists incommunity. (3) Fostering a sense of mutual respect andappreciate in the development of society. (4) As for the entertainment suggestionsSubmission community values are in the dance arts Dolalak through twoway. Direct that the values described in the "singir" performed. Indirectly by telling a characterwhich has a thoughtful gesture that the prophet Muhammad and Umarmoyo contained in singir performed. Until now the role of government and society in preservingDolalak dance art is very good. Through Peraturan BupatiPurworejo No. 60 of 2009 on the "Implementation GuidelinesBased Education Local excellence "be a good move fromgovernment to maintain, sustain and introduce cultureLocal to the younger generation in the education space.

One way that can be taken in schools is to integrate the values of local wisdom in the process of learning, extra curricular activities, or student activities at school. The integration of character education based on local wisdom in mathematics learning process implemented from planning, implementation, and evaluation. During the implementation phase, the teacher must prepare lesson plans accordingly. Teachers must specify what character will be developed in mathematics to be implemented. Math regard to evidentiary problems. Steps in mathematical proof should be based on things that have recognized the truth. Step by step should be based on reasonable grounds and right. This is the way to teach math right attitude and responsible life. Mathematics teaches that every word, will and deed should be based on the correct source. Mathematics is also taught to be unyielding and confident. Never give up and stay confident while working or solving mathematical problems and when failed or can not answer.

At this stage of learning, teachers can encourage students to practice the arts Dolalak. By practicing the song that contains advice, the teacher can instill character values to students. The poem on the theme of education can also be made of teachers, such as creating a poem containing mathematical concepts. In uniform or dress Dolalak can be used to teach the material symmetry for decoration and accessories worn on the uniform symmetrical except for a shawl / sampur. Dolalak can dance danced by groups, couples, and single material can be used to teach numbers and the set. Of course by using Dolalak arts, mathematics learning will be more fun. They studied mathematics at the same time develop the character and artistic talent that they have. They also do a physical activity that is dancing to relieve boredom. For students who lack interest in the arts, they at least feel bored with the monotony of learning mathematics. In the evaluation phase may use elements of local wisdom in it, such as making decision-name do la la which is the dominance of tone in the arts Dolalak on statistical material (mode). The teacher must be a model in character, one of them from the beginning to the end of the lesson, speech, attitude, and actions of the teacher should be a reflection of the values of the character you wish embedded.

### **CONCLUSION**

Based on the above, it can be concluded that the study of mathematics can be taught in a fun using local wisdom approach also while building students' character. Learning mathematics with local wisdom-based character education undertaken from planning, implementation, and evaluation. In the planning stage, local wisdom-based character education incorporated into the lesson plan. During the implementation phase, the learning of mathematics is done by doing a dance Dolalak. In the evaluation phase of mathematics learning with character education done using art elements in the dance dolalak in the matter. Thus the learning of mathematics needs to be done by integrating the values of local wisdom so as to develop the character and interest of students to mathematics.

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