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Identification of Lampung local potential as source of Biology learning in senior high school

Eka Wulandari*, Djukri

Biology Education, Faculty of Mathematics and Natural Science, Universitas Negeri Yogyakarta, Indonesia

*Corresponding author: ekawulandari.2019@student.uny.ac.id

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A B S T R A C T

This research is a preliminary study on a small and limited scale that aims to identify local potentials in the Lampung area as a source of learning biology with conformity to the Basic Competencies in the 2013 Curriculum. This study used a qualitative method with a survey technique through an exploratory descriptive approach. Participants in this study were all biology teachers from 17 public high schools in Bandar Lampung totaling 30 teachers (5 males and 25 females). The selection of participation was done through purposive sampling technique using certain criteria. The results of the study show 18 local potentials of Lampung consisting of 6 natural resource potentials, 4 conservation areas, 4 culinary delights, 2 arts, 1 handicraft and 1 traditional ceremony. The grouping of local potentials can be related to the subject of biology at the high school level. Local potential can be categorized as use in the field of education, namely natural resources and conservation areas. It can alsobe used as practicum activities with the help of LKPD media. Furthermore,local culinary potential can be used as practicum activities on learning devices (RPP), local potentials for arts, crafts. moreover, traditional ceremonies can be used as an additional reference for enrichment programs on learning devices (RPP).

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INTRODUCTION

Local potential is the potential of specific resources owned by an area including natural and cultural resources (Destiara, 2020). One of the demands of the 2013 curriculum which refers to Law no. 20 of 2003 concerning the National Education System is learning based on local potential. Learning about local potential is intended to form students' understanding of excellence and wisdom in the area where they live and make the learning process more applicable and meaningful (Permendikbud, 2014).

But in reality,the national education system tends to be a mere process of improving the skills and intelligence of students. Meanwhile, the matter of forming a superior personality, quality and culture in the area where he lives has not been considered fundamentally. The causes of the low quality of learning include: 1) the teaching performance of teachers is more focused on administrative demands 2) the learning system focuses more on the quantity of results than the process and 3) learning resources that are not reliable enough to support the achievement of educational goals(Elvira, 2021).According to Eskawati & Sanjaya (2012)one of the factors that causes the low quality of learning is that teachers have not implemented learning resources optimally. This is in line with the obstacles that occur in learning in schools, one of which is the use of learning resources that are less than optimal, resulting in the low quality of education.

Based on observations of schools in the city of Lampung, not all teachers in the area have found local potential as a source of learning in their schools. Learning through local potential as a learning resource has not been yet optimal, teachers often use learning resources in the form of textbooks obtained from publishers. According to Faridah et al.(2017)textbooks obtained from publishers are more general in nature and will not facilitate the training of competence and observation skills of students due to the absence of interaction with the surrounding environment. According to Susilo (2018) and Sasmita(2020),learning biology which is just an interaction or communication of material from teachers to students and does not link the environment or local potential in the learning process will become bored and affect the quality of learning.

One solution to overcome this problem is to start with biology learning materials combined with local potential. Utilization of local potential content in learning can help students learn biology with real-life learning that is close to their daily lives and can enrich learning materials (Ismiati, 2020). According to Adawiyah et al. (2020) the integration of local potential as a learning resource that presents real objects or examples found around students is able to influence better attitudes, habits and concern for the natural surroundings. This is also in accordance with the results of research Abidinsyah et al.(2019)that the implementation of learning that utilizes local potential and advantages is able to improve the ability of students' content, context, and science processes. Biology learning using local potential as a learning resource can create direct interaction between students and the object of study so that it can be used as a tool in presenting biological material that is suitable for everyday life(Tanti et al., 2021).

Various previous research studies that have been carried out include: local potential by identifying the presence of melinjo in Banten (Wahyuni et al., 2021), wood carving and pottery in Malang (Tibrani, 2019), flower diversity in Bantul as a learning resource (Nurmalasari et al., 2020). Found places with the presence of natural resources, conservation, culinary, arts and culture can be potentially developed into the educational curriculum in the classroom, namely as identifying learning resources on various materials, enrichment processes for students, places for field studies, as additional material for biological content which is not in the school book. Researchers in this study will identify local potential in the Lampung area because previously no one has done this research. Then, learning in schools is still monotonous according to books so that it has not shown real examples in real life and in schools learning is

still centered on theory, approaches based on local potential such as contextual have not been carried out.

Based on this description, the researcher is interested in identifying further about the local potential in the Lampung area which consists of natural resources, conservation areas, culinary and arts and culture. This research is a preliminary study on a small and limited scale that aims to identify local potentials in the Lampung area that can be used as a source of learning biology with conformity to the Basic Competencies in the 2013 Curriculum.

METHODS

Research Design

This study uses qualitative methods with survey techniques through an exploratory descriptive approach(Umair et al., 2017). Which aims to identify local potentials in the Lampung area used by biology teachers. In this study it is not intended to test hypotheses but only identify local potentials that can be used as learning resources. The local potentials that the researchers will note are 18 which consist of natural resources and conservation consisting of Pahawang Island, Sari Ringgung Beach, Center for Marine Aquaculture Fisheries, TAHURA located in Pesawaran Regency. Pasir Putih Beach is located in South Lampung Regency. Kiluan Bay, Batu Tegi Protected Forest located in Tanggamus Regency. Way Kambas National Park is located in East Lampung Regency. Lembah Hijau Animal Park, Gita Persada Butterfly Park located in Bandar Lampung City. Culinary which consists of Seruit, Sekubal, Benjak Enjak, Sambal Tempoyak which is a typical food of Lampung and Arts in the form of Sembah/Siger Pengunten Dance, Bedana Dance, Tapis Cloth and Begawi. The research was carried out in all public high schools in Bandar Lampung.

Pupulation and Sampling

The population used is all high school teachers in the Lampung area. The sample selection was through purposive technique with the criteria: 1) last education 2) length of teaching and 3) number of classes taught. sample obtained were 30 teachers (5 male and 25 female). The sample aims to explore information about the use of local potential as a learning resource used in the learning process. The components explored include learning resources based on local potential types of natural resources, conservation sites, culinary arts and cultural arts.

Instrument

The instrument used in this study was an interview instrument (Table 1) which includes a brief profile of the teacher, local potential as a learning resource, linkage of local potential learning resources with the basic competencies used, etc. This interview was conducted with a biology teacher at a public high school in Bandar Lampung by means of a guided interview so that the teacher was provided with a complete and detailed list of questions (Mania, 2008)which was carried out in schools. This interview aims to obtain data related to local potential by biology teachers. Then the literature study aims to add information related to local potential in Lampung, the search process using the internet and journals by entering keywords of local potential, for example, 'Pahawang Island' and 'Teluk Kiluan' and others.

Prosedure

In carrying out this research, the first stage is a preliminary study to see the initial conditions of learning carried out by the teacher then collect and compile data on local potential in the Lampung area which has the potential as a learning resource, the second stage determines the population and sample. Furthermore, the third stage is observation to schools to conduct interviews with teachers, the fourth stage is collecting data related to local potential

as a learning resource, and finally explaining the results of the data by being analyzed qualitatively. These stages are illustrated in the following chart (Figure 1)

Table 1.
Interview Instruments

No	Question
1.	Do you know the local potential in Lampung?
2.	Have you linked the local potential in Lampung as a source of learning biology?
3.	Can the local potential of the natural resources section be used as a learning resource?
4.	According to you, Can Pahawang Island, Kiluan Bay, Pasir Putih Beach, Sari Ringgung Beach, Batu Tegi Protected Forest, Marine Cultivation Fisheries Center including local potential natural resources be used as learning resources?
5.	In your opinion, the local potential of natural resources can be related to what topics of discussion?
6.	Can the local potential of the conservation area be used as a learning resource?
7.	According to you, Can Way Kambas National Park, Lembah Hijau Animal Park, Gita Persada Butterfly Park and Wan Abdurrahman Forest Park, (TAHURA) including local potentials for conservation be used as learning resources?
8.	According to you, can local potential of the conservation area be related to what topics of discussion?
9.	Can the local potential of the culinary section be used as a source of learning?
10.	In your opinion, Can Seruit, Chunky Cake, Benjak Enjak, Sambal Tempoyak among the local potentials of the culinary section that be used as learning resources?
11.	According to you, can local potential of the culinary placebe related to what subject matter?
12.	Can the local potential of the arts section be used as a learning resource?
13.	According to you, Can Sembah / Siger Pengunten Dance, Bedana Dance including the local potential of the arts that be used as a source of learning?
14.	In your opinion, can local potential of the arts section be related to the topics of discussion?
15.	Can the local potential of the craft section be used as a learning resource?
16.	In your opinion,CanTapis Cloth a local potential for handicrafts that be used as a learning resource?
17.	According to you, can local potential of the handicraft section be related to the topics of discussion?
18	Can the local potential of the traditional ceremony be used as a source of learning?
19.	In your opinion, can Begawi a part of the local potential for traditional ceremonies that be used as a source of learning?
20.	According to you, can local potential of the traditional ceremony section be related to what topics of discussion?

Data Analysis Techniques

The data analysis technique used in this study was qualitative. Data collection was done through interviews, reduction by focusing on matters relating to the local potential of Lampung, presentation in narrative and tabular form and drawing conclusions (Sugiyono, 2017). Presentation of data through tables and descriptions by identifying the local potential of Lampung as a source of learning biology.

RESULTS AND DISCUSSION

The local potential in the Lampung area has been known by biology teachers, but not all teachers have linked local potential as a learning resource. Local potential in the Lampung region is a natural resource consisting of flora and fauna, a place of conservation as a place for preserving the flora and fauna typical of Lampung, culinary arts with regional specialties, arts crafts and traditional ceremonies as a culture to make meaningfulness faced by students because they are faced with actual and natural phenomena that can be justified. The existence of local potential gives a fairly important meaning, because in learning activities the ambiguity of material sourced from books can be conveyed through local potential and become an intermediary used as a channel for messages to achieve the objectives of learning biology. The importance of local potential in learning can add insight to students and teachers that local potential can be used as an additional reference to the subject matter of biology.

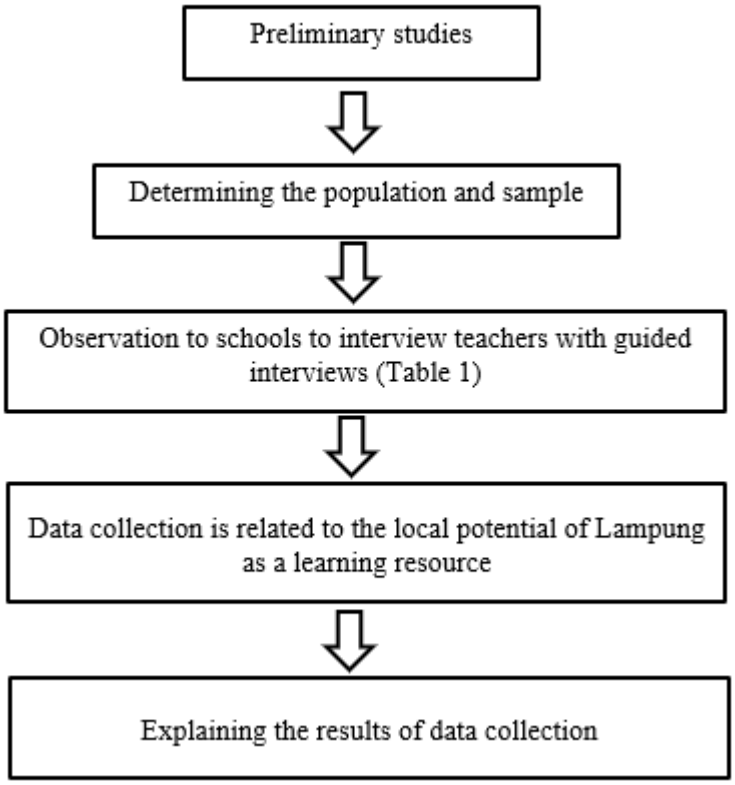

Figure 1. Stages of research carried out

According to Sobiatin et al. (2020)local potential has the value of learning resources if they have the following criteria: 1) economic value, local potential is said to be economic if the school is close to the location; b) practical, if the learning process can be done easily; c) flexible, can be said to be flexible if it can be used in any condition so that it can be done both inside and outside of learning; d) conformity with learning objectives, learning resource components have conformity with learning objectives. This is in line with the results of interviews that the teacher believes of local potential from aspects of natural resources, conservation sites, culinary, arts, crafts and cultural ceremonies can be used as a source of learning biology because it has economic indicators, practical, flexible and can be adapted to learning objectives. Findings of local potential from these various aspects can be related to the subject matter of biology.

The results of the identification of various local potentials in Lampung obtained 18 local potentials that were adjusted to the competence of high school so that they could be used as learning resources are presented in (Table 2).

(Table 2) informs the local potential originating from the City of Lampung. The local potentials are grouped into 6 types, namely: 6 natural resources, 4 conservation areas, 4 culinary delights, 2 arts, 1 craft, and traditional ceremonies 1. Lampung can be associated with biological material in the learning process. The use of this local potential can make it easier for students to understand the concepts being studied because it relates to the problems around them so they are able to appreciate the environment in which they live. This is in line with Nurhidayati (2020)who state that students will develop a love and respect for the environment in which they live if it is associated with learning.

Table 2

The results of the Local Potential Identification of the Lampung region found

No.	Aspect	Local Potencial
1.	Natural Resources	Pahawang Island
		Kiluan Bay
		Pasir Putih Beach
		Sari Ringgung Beach / Tegal Island
		BatuTegi Protection Forest
		Center for Marine Cultivation Fisheries (BBPBL)
2.	Conservation Place	Way Kambas National Park
		Lembah Hijau Animal Park
		Gita Persada Butterfly Park
		Wan Abdurrahman Forest Park (TAHURA)
3.	Culinary	Seruit
		Sekubal Cake
		Benjak Enjak
		Sambal Tempoyak
4.	Art	Sembah/Siger Pengunten Dance
		Bedana Dance / Melinting Dance
5.	Craft	Tapis Cloth
6.	Traditional Ceremony	Begawi

Local potential associated with Biological Content

1. Natural Resources

1.1 Pahawang Island

Pahawang Island ,one of the small islands, has a seagrass ecosystem which is a habitat that supports the life of aquatic biota such as the Epifauna. Epifauna found, namely the Cerithium sp and Cronia sp species which have a relationship or association with seagrass as a shelter, foraging for food, and growing and developing. Conditions that affect the presence of epifauna in seagrass are temperature, salinity, depth, pH, current, and Do (Dissolve Exygen). Then the factors that affect the growth of seagrass life are influenced by predation factors that use epifauna and seagrasses as food sources and also the existence of competition or rivals in finding habitat and food (Prakoso, 2015).This explanation can be used as an example of ecosystem components and component interactions in class X ecosystem material.

1.2 Kiluan Bay

Kiluan Bay has a community attraction with the presence of dolphins crossing the coast as their habitat(Levyda,2018). According toTri (2015) the types of dolphins found in Kiluan Bay are the bottlenose dolphin (Tursiops truncatus) and spinner dolphis (Stenella longirostris). The total number of dolphins is 501 individuals. Dolphins are found at depths of 150-250 meters and are in the open sea (Indonesian Ocean). It was further stated that the dolphin attraction in Kiluan Bay is considered safe to be enjoyed because the bottlenose dolphin is an animal that does not attack. Dolphins are traveling, jumping with aerials movement into the air, bow riding or swimming next to the ship, avoiding the ship.Siahainenia (2008) revealed that in 2007 there were 2 types of dolphins in Kiluan Bay, namely the Spinner dolphin (Stenella longirostris) which amounted to 541 and the Bottlenose dolphin (Tursiop truncatus) which amounted to 341, traveling, aerials, peeding and bowriding. Dolphin attractions are the main destination for tourists to come to Kiluan Bay, they judge that they can see dolphin attractions clearly and in a long time and the number of dolphins encountered. Animal behavior is an activity to adapt that involves physiological functions with different internal and external conditions. An explanation of the behavior of dolphins can be used as a discussion content regarding the sub-material of the biology branch, namely Zoology which studies the classification and behavior of animals in the subject matter of the scope of biology class X.

1.3 Pantai Pasir Beach

Pasir Putih Beach is a tidal large area that with varied beach substrates. Diversity of marine biota was found, one of which was molluscs (bivalves and gastropods). The existence of mollusks is influenced by aquatic environmental factors such as abiotic factors of temperature, pH, depth, DO, BOD and COD(Maretta et al,2019). This explanation of the existence of organisms in local potential can be an example of biological content in the Animalia material specification for Class X Invertebrates.

1.4Sari Ringgung Beach

Sari Ringgung Beach has 20 types of mangrove forest. The mangrove species consist of Arecaceae, Avicenniceae, Combreteceae, Euphorbiaceae, Leguminosae, Lythraceae, Goodeniaceae, Malvaceae, Meliaceae, Melastomataceae, Pandanaceae, Rhizoporaceae and Rubiaceae. According to Sari (2017)there are 8 major mangrove species, 4 minor mangrove species and 8 associated mangrove species. The existence of this mangrove ecosystem is a habitat for nearby animals such as shrimp, small fish, crabs, water birds. Explanations related to mangrove diversity can be used as biological content regarding biodiversity and the presence of animals around mangroves can be used as examples for the food chain in the mangrove ecosystem. Thus, this local potential can be linked to the subject of biology, namely biodiversity and ecosystems in class X.

1.5 Tegal Island

Tegal Island is famous for the cultivation of Duck Grouper (Cromileptes Altivelis) which is one type of fish that is popular in local and foreign markets. The grouper belongs to the family Serranidae which has the characteristics of a body covered by small scales. The presence of grouper is strongly influenced by water quality such as oxygen content, temperature, pH, current velocity, nitrate and phosphate (Anggraini et al., 2018). An explanation of the presence of groupers on the island of Tegal can be a potential source of learning biology in the Animalia material specification for the Vetebrates X sub-material.

1.6 Batu Tegi Protection Forest

Batu Tegi Protection Forest is a forest area used as a location for releasing protected wildlife, one of which is the Sumatran slow loris (Nycticebus coucang). Slow lorises are omnivores and insects are one of the preferred foods for slow lorises. There is a diversity of loris feeding insects in the Batutegi forest. There are 24 families with the most families being Acrididae, Formicidae, Chrysomelidae, Tettiginidae, and Gryllidae(Dwihandayani et al., 2017). The level of diversity of insect families depends on various factors such as abiotic and biotic factors. According to Hadi (2009), insects are attracted to plants, either for food or as shelter. External factors that affect insects are temperature, humidity, light, color, smell and wind as well as food and biological factors. The explanation of the diversity of insects foraging for slow lorises at this potential is very suitable as a source of learning biology in the discussion of class X biodiversity.

1.7 Center for Marine Cultivation Fisheries (BBPBL)

The Center for Marine Cultivation Fisheries has the task of cultivating fish and other marine animals (production management, laboratory testing, fish health). One of the animals in the Marine Cultivation Fisheries Center is a sea horse that has a unique behavior. This behavior is that only male seahorses get pregnant and keep their young in the pouch until they hatch, while female seahorses only release their eggs into the male brood pouch. Then, female seahorses are able to mate with more than one male in one reproductive cycle (poloandry mating type)(Sukmono, 2014). This explanation of the behavior of seahorses on local potential

can be used as content for discussions on the sub-material of the biology branch, namely Zoology which studies of animal behavior in the subject matter of biology class X

2. Conservation Place

2.1 Way Kambas National Park

Way Kambas National Park has a lowland ecosystem consisting of several types of ecosystems such as: grassland areas, secondary forests, and swamps. This ecosystem is a habitat for various types of Sumatran elephants (Elephas maximus sumatranus) and birds. According to Kamaluddin et al. (2019)the selection of habitat for Sumatran elephants requires factors such as the availability of places to find food, canopy closure as shelter and the availability of water sources. Then (Kamaluddin et al., 2019) stated that the habitat conditions in the Way Kambas area were inhabited by species of nectar-eating birds, insects and seeds such as the Pycnonotidae, Ploceidae, Nectariniidae, Picidae, Cisticolidae, Cuculidae and Columbidae families while the swamp habitat was dominated by water birds of the families Ciconiidae and Ardeidae. The condition of this bird's habitat has its own type with its function as a place to find food, shelter and breed. Explanations relating to ecosystem types in Way Kambas as habitat for elephants and birds can be used as biological content regarding ecosystems and bird diversity around local potential can be used as examples for class X biodiversity material.

2.2 Lembah Hijau Animal Park

Lembah Hijau Animal Park is an ex-situ conservation area where various types of protected animals live. The main function of ex-situ conservation is to carry out the care and capture of various types of animals to form and develop new habitats as a means of protecting and preserving nature. There are several protected animals such as the Javan gibbon (Hylobates moloch), Sumatran gibbon (Hylobates agilis), Green peacock (Pavo muticus), Timor deer (Cervus timorensis), Black eagle (Ictinaetus malayensis), Brontok eagle (Nisaetus cirrhatus), Bondol eagle (Haliastur indus), Parrots (Gracula religiosa), Barrel stork (Leptoptilos javanicus), Binturung (Arctictis binturong), estuarine crocodile (Crocodylus porosus), and irian crocodile (Crocodylus novaeguineae)(Alfalasifa & Dewi, 2019). An explanation on the function of the conservation area and the diversity of the animals, it protects can be linked to the subject matter of Class X Biodiversity.

2.3 Gita Persada Butterfly Park

Gita Persada Butterfly Park is a butterfly conservation area with the identification of 21 species of Papillionidae butterflies grouped into six families, namely Aristolochiaceae, Rutaceae, Lauraceae, Magnoliaceae, Annonaceae and Piperaceae. Butterfly Park has habitats, namely flowering plants that produce nectar and host plants that feed the larvae as a place for butterfly conservation(Soekardi, 2012). The butterfly life cycle consists of egg, pupa and imago stages. The mating behavior pattern of male butterflies is polygamous while females are monogamous. The feeding behavior of butterfly larvae mostly eats with the position of the larvae on the leaf surface starting from the tip of the leaf to the base of the leaf. Humidity and air temperature are environmental factors that affect butterfly activity(Tamimi, 2018). An explanation of the diversity of butterflies and their habitat as a place to live can be linked to the topic of the discussion on Biodiversity. Then the life cycle and behavior of butterflies can be related to the subject of growth and development in class XII and the scope of biology in class X.

2.4 Wan Abdurrahman Forest Park (TAHURA)

The natural forest on Gunung Belung is an important habitat for the rhinoceros' hornbill (Buceror rhinoceros) which has a yellow beak with a red base with red-yellow horns that curve upwards. The fur is predominantly black and white and the tail is striking white with a wide black transverse stripe (Aryanto et al., 2018). Siahaan et al. (2019)explained that there are 2 types of amphibians from the Ranidae family and 1 type from the Bufonidae family. Then there is the liana plant which is one of the plant species that characterizes the tropical rain forest ecosystem and its presence adds to the diversity of plant species in the Wan Abdurrahman Forest Park ecosystem. Liana plants have positive and negative roles for forests and their environment. Positive roles include preventing trees from falling due to wind because their growth spreads between the supporting trees in the forest, as a source of food, and as a support tool for animals that pass through the trees. The negative role of lianas is that they can cause damage to certain places on the supporting plants they climb such as wounds on tree trunks (Simamora & Bintoro, 2015). The existence of fauna species and the presence of flora that have benefits in this potential is very suitable for local materials in the discussion of class X biodiversity.

3. Culinary

3.1 Seruit and Sekubal

Seriut is a typical Lampung ethnic food. Seruit is a mixture of chili sauce, grilled shrimp paste, grilled onions, then mixed with a little water. Various foods such as fish, boiled eggplant and oyong can be eaten together with a string. Almost every day, all types of food from Lampung people are always served with chili paste or at least chili paste(Leksikowati et al, 2019). Sekubal is made from various ingredients including coconut milk and glutinous rice wrapped in banana leaves, which are a typical food during the holidays, usually as a dip for rendang and malbi (Riveyra, 2019). The two Lampung specialties, namely Seruit and Sekubal, have a variety of ingredients or compositions in their manufacture. This local potential can be an example to teach classification on class X biodiversity material.

3.2 Benjak Enjak

Benjak Enjak is made from a mixture of glutinous rice, bananas and coconut milk and sugar so it has many benefits because of its fiber content which is good for the digestive system. The nutrients contained in glutinous rice are protein, fat, carbohydrates, calcium, potassium. Bananas have nutrients in the form of carbohydrates, protein, fat, water, sugar. Then the nutrients contained in coconut milk such as calories, water, protein, fat and carbohydrates(Indriani, 2015). The nutritional content of the ingredients used to make Benjak Enjak can be used as an example to teach the topic of the digestive system for class XI and as a project for student activities.

3.3 Sambal Tempoyak

Tempoyak Sambal has a distinctive taste and aroma which is a mixture of chili sauce with processed durian fruit that has been fermented. The tempoyak fermentation process is carried out by adding 1-1.5% salt to the fruit flesh and then allowing it to stand for three to seven days at room temperature. The sour taste in tempoyak is related to the activity of lactic acid bacteria such as Lactobacillus plantarum L, Lactobacillus mali, Lactobacillus fermentum, and Lactobacillus casei. Lactic acid bacteria have a role in the acidification of raw materials by producing large amounts of lactic acid, acetic acid, ethanol and CO2 (Anggraini & Widawati, 2015). The process of making this tempoyak can be used as an example for material in the discussion of fermentation of biotechnology material for class XII and as a project for student activities

4. Art

4.1 Sembah Dance / Siger Pengunten Danceand Bedana Dance

Sigeh Penguten dance is one of the variations of dance creations in Lampung. This dance represents the warmth of the people of Lampung in welcoming guests. The dancers in this dance experiment with a series of movements that are flexible, friendly and full of warmth. The motion of the Sigeh Pengunten Dance is lifted from movements such as ngukel, samber, hovering, and worship (Sanjaya et al., 2020). Bedana dance is a Lampung folk art that has cultural values to introspect a relationship, affection and brotherhood. This dance is performed in pairs with a series of movements, namely tahtim (movement of the legs stepping by swinging the hands in opposite directions), humbak muloh (movement of the arms to move), gelek (crossing the legs), ayun (movement of the elbows as if to elbow), doormat injing (lower body), hanging mat (legs docked), jimpang (legs pinching), hanging (movement of the elbows as if to elbow) (Sofia, 2014). The art of dance can be enjoyed from body movements, especially the hands and feet, this creates various movements and movement mechanisms in dance. This local potential can be used as a reference regarding the relationship between the tissue structure and the arrangement of the organs of the movement system in the class XI motion system material.

5. Craft

5.1 Tapis Cloth

Tapis cloth is a women's clothing of the Lampung tribe in the form of a sarong made of woven cotton threads with motifs such as natural, flora and fauna motifs embroidered (cucuk system) with gold thread and silver thread (Saputra et al, 2020). Cotton thread is a thread that comes from cotton and is used as a basic material in the manufacture of filter cloth, while gold thread is used to make decorations on the filter with the embroidery system. The woven filter cloth is used at the waist down (Sagita,2019). The activity of embroidering the filter cloth with the beak system involves the function of the hand muscles. This local potential becomes very suitable for local material samples in class XI motion system materials.

6. Tradisional Ceremony

6.1 Begawi

Begawi is a traditional ceremony to give adok. Adok is the giving of nicknames or titles to boys and girls who have grown up to be teenagers and adults (married) to determine one's position in customs and influence the role, position in the structure of traditional ceremonies through this traditional ceremony based on hereditary lineages(Syarifah et al., 2017). This local potential can be used as a reference for examples of inheritance patterns studied in class XII human heredity material.

The grouping of local potentials can be related to the subject of biology discussion in grades X, XI, and XII. The subject of discussion related to the level of class X is the material Scope of Biology, Biodiversity, Ecosystems, Animalia. At the level of class XI is the material on the Digestive System, Movement System. At the level of class XII is the material on Growth and Development, Biotechnology and Heredity in Humans. There is local potential that can contain more than 1 subject or biological material such as Sari Ringgung Beach and Way Kambas National Park related to Ecosystems and Biological Diversity, Gita Persada Butterfly Park related to the material Scope of Biology, Growth and Development and Biodiversity.

Local potentials for natural resources and conservation sites include the presence of organisms in them, habitats as a place to live and look for food, distinctive characteristics and behavior, the existence of diverse organisms that make the connection in biology learning on the subject of Ecosystem, Biology Scope, Animalia and Biodiversity. Learning can be done through direct observation to locations that will provide direct experience with the help of

LKPD learning media in the form of books or androids through a scientific approach. This is in line with Syamsu (2020) which concludes that learning through direct observation provides direct practice to students.

Local potential for culinary contains ingredients for making food derived from biotic components such as plants in which various types of plants exist. This can make linkages to the subject matter of biology discussion; students can be taught about classification using typical Lampung food ingredients through biodiversity learning. Then related to the content contained in foodstuffs that are rich in nutrients such as carbohydrates, proteins, fats, etc., they can be used as learning materials for the digestive system material. In the process of making various typical Lampung foods, one of which is the process of making tempoyak using fermentation. The fermentation process can be related to biotechnology material, students are taught to understand the use of biological science to produce a product and conventional as well as modern biotechnology through practical activities on the learning devices (RPP). This learning can be used as an assignment regarding the practical activities of making biotechnology products. Classifying, testing the content of food ingredients and the manufacturing process can be done in practical activities in the laboratory. Practical activities are part of learning activities. The existence of this laboratory activity can make students conduct an experiment to prove a theory and material obtained in the learning process in class. This can increase students' understanding of the material being taught. This is in accordance withWahyuni and Taiyeb (2021) that the learning process really requires practicum activities, because these activities are an integral part of learning activities.

The local potential for arts and crafts includes a human physical activity through dance movements and the manufacture of craft materials that involve the muscles of the hands and feet, various kinds of movements can be linked through the subject of the movement system. Students can analyze the types of movements and organs that function in various motion activities that they are doing. The activities of dancing and making handicrafts with various kinds of movements can be examples. The local potential of traditional ceremonies contains an activity based on lineage. This can be an example of a biological discussion of heredity in humans. Patterns of inheritance can be studied in relation to this local potency. The local potential of arts, crafts and traditional ceremonies can be used as an additional reference for students related to examples on the subject of biology in the enrichment program on the learning devices (RPP). With the hope that students are able to think scientifically by finding a problem, formulating a hypothesis, conducting an experiment, evaluating and communicating the results. This can be done using the inquiry model. In line withWidya et al,. (2020) stating the inquiry model is able to develop students' scientific thinking.

CONCLUSION

The results of the study of 18 local potentials in the Lampung area have biological content and meet the criteria to be used as learning resources. The local potentials are grouped into 6 types, namely: 6 natural resources, 4 conservation places, 4 culinary, 2 arts, 1 craft, and 1 traditional ceremony.The grouping of local potentials can be related to the subject of biology at the high school level. Local potential can be categorized as use in the field of education. Natural resources and conservation areas can be used as practicum activities with the help of LKPD media, local culinary potential can be used as practicum activities on learning devices (RPP), local potentials for arts, crafts and traditional ceremonies can be used as an additional reference for enrichment programs on learning devices (RPP).

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