



KEMENTERIAN PENGAJIAN TINGGI



PITEX INNOVATION REPORT JUN2020 SESSION
RESEARCH AND INNOVATION UNIT

PROJECT TITLE: TRADISIX 2020
CIVIL ENGINEERING DEPARTMENT

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1.Problem Statement

The TRADISIX 2020 is an upgrade project from TRADISIX (appendix 1). There are some problems or deficiencies found in TRADISIX. Among the problems or deficiencies found in TRADISIX are:

TRADISIX material is too heavy with a weight of 7kg. TRADISIX 2020 we choose a light and attractive material that is a box made of plywood (6mm) and wrapped with sponge (3mm) and songket cloth. The material for congkak and konda kondi is pine wood. Weight for TRADISIX 2020 is 4.5kg.

The second problem is, unmanaged storage space. Storage space that does not have a barrier that causes the game stored in the storage space to come out if the box is opened. The solution is to make the storage space with the concept of 'drawstring pouch' that remains attached to the box.

Next, the TRADISIX box holder hurts hands because the TRADISIX box factor is too heavy and the type of handle used is an iron handle. The solution is to use the concept of 'dual reinforced handles to bottom' for the box holder. The type of rope used is 'cotton canvas'.

In addition, TRADISIX its use is limited to children only. So, to produce TRADISIX 2020 it can be used by various ages, however once the study is done, two sets of TRADISIX 2020 are required. One set for children starts at age 7 and the second set is suitable for use starting at age 12.

2. Research

Traditional game is a game that set up by Malay people from the beginning for making fun. It is a way of society in the past to entertain the times when no electronic media can entertain them. Traditional game is a legacy of our ancient's ancestors and also invaluable Malay cultural heritage that is priceless and cannot be replace because it symbolize our custom, culture, and identify of one nation. Traditional game also was very popular during the glory of Melaka destination. Besides, Malay society is rich with variety of traditional games. The traditional game is related to something received by a person and community group from the previous generation. It reflects the memory of the whole life of a nation that symbolizes its civilization. According to sources from the National Heritage Department, the traditional game of the Malay community this game is played by both men and women.

Firstly, congkak or congkak(appendix 2) is a mancala game of Malay origin played in Malaysia, Singapore, Brunei, Southern Thailand, and some parts of Sumatra and Borneo. Congkak is often considered a game for girls, has simple rules that allow the boards to have different numbers of holes that should be 12 or above. The word congkak was believed to originate from old Malay "congkak", meaning "mental calculation" which is mainly practiced in this game. The rule of this game is need two (2) players for one set congkak. The winner in this game is the one of the player with getting the higher amounts of marble. Old congkak was made from wood but instead it pretty heavy also a little hard to carry everywhere beside it is no specific place to keep the seed.

The second game is konda-kondi (appendix 2). Konda-kondi is one of the traditional outside game that use large area to play. Konda-kondi is a small game hitting with long wooden sticks. Konda-kondi also known as "Perik Mata" requires a sharp mind and strength of the players, when thinking in a safe direction to scrape wood and wood chase to disable the opponent's side. Konda-kondi needed one 50cm to 60cm long wooden stick and two 15 short wooden stick.

Usually it is play on the ground by digging the ground or make a small hole and it need two (2) players or more to start the game. In addition, the standard size for konda-kondi hole is 6cm to 7cm and the wide is 10cm.

Gasing (appendix 2) is a game that can spin around its axis, while balancing at one point. Gasing is usually plays after the harvest. This game is contested between the villages. The winner is based on the time period the spin is able to rotate. Gasing is made from kayu bebaru, kemuning, merbau, rambai, durian or kundang. The wood will be scraped into gasing shape. The rope is made from bebaru tree. But, nowadays the strap is made from nylon rope. The length of the strap usually depends on the length of someone hand and usually 1 meter long. This traditional game is unique and capable of attracting the attention of the world as it embraces the way Malaysians live. This legacy need to be preserved and developed to the younger generation so that it can continue to grow and apply its tradition in everyday life (Department of National Culture and Arts, 2012).

The next game is Batu Seremban (appendix 2) or Serembat. Selambut is a reference to the north and east coast of Peninsular, while on the west coast of Peninsular is called Seremban game. It is made by stone or cloth. The amount of the batu seremban should be five (5) or seven (7) and the players are usually played by girls individually or in groups of two (2) to five (5) people. There are many styles on playing the batu seremban games and characteristic of lobbing. Batu seremban is an easy game for children to play and learn about game. Furthermore, it is easy to play in small area or big area because it is easy to bring anywhere. Batu seremban can also be found with variety of size and color. Thus, our innovation in making batu seremban is we use the unused recycle cloth with beads inside it. Playing is a fun and entertaining thing. This opinion is supported by (Frost, Bowers & Wortham, 1990) that play can contribute to the development of children from social, affective and psychomotor aspects.

Teng-teng or Ketinting (appendix 2) is one of Malay cultural heritage which is still popular nowadays and usually played by children aged 6 to 15 years. Number of players was unlimited and at least two players. Girls and boys love this game because it was a fun game and this game can test the stamina and efficiency of a player. This game was practiced especially by rural communities that still maintain their ancestral heritage. Old teng-teng has no specific storage for keep the line. So, TRADISIX produce the storage to keep the teng-teng's corps

Besides that, next game is called dam (appendix 2). Dam Haji is a two-player traditional game and one of the Checkers/Draughts variation. The promoted piece is known as "Haji" in this game (hence the name of the game). Two modes are provided; the Standard mode (Dam Haji) and Giveaway mode (Dam Suap). It can be played either using 8×8 (24 pieces) or 10×10 (40 pieces) board size. The winner in this game is the one who get higher dam. Dam will use half size of base board to keep the traditional format in dam game.

Next, for the main materials to make the box is plywood. Plywood looks great and strong. Plywood panel typically covered with solid wood and looks just as great as real wood. It would look even greater if a good quality veneer s used. The cross-grained nature of the structure of plywood, its strength is well and evenly distributed, while solid wood tends to be just stronger along the grain, Plywood becomes even stronger with the usage of veneer as well as strong phenolic adhesives. Plywood is durable, lightweight and comes in large sizes. Unlike solid wood, plywood boasts of uniform strength along grains regardless of direction. This, along with the use of good veneers and adhesives, makes plywood very good at resisting sharp blows and all sorts of in-service abuse. That makes it a very durable product engineered wood product. Plywood is surprisingly so much lighter than solid wood. That makes plywood even more perfect for furniture-making. Plywood is very eco-friendly. That means more timber is conserved, and that makes plywood an eco-friendly product.

The next materials is Songket. Songket is a fabric that belongs to the brocade family of textiles of the Malay world (today, Indonesia, Malaysia, Brunei, Singapore and Southern Thailand). It is hand-woven in silk or cotton, and intricately patterned with gold or silver threads. The metallic threads stand out against the background cloth to create a shimmering effect. In the weaving process the metallic threads are inserted in between the silk or cotton weft threads in a technique called supplementary weft weaving technique. Songket is traditionally considered on exquisite, luxurious and prestigious traditional fabric, only worn for special occasions, religious festivals, and traditional social functions. The main weaving equipment made from wooden or bamboo frame. The materials for making songket consist of cotton or silk threads or other fibers as the base fabric and decoration threads made from golden, silver or silk threads.

2.1 Flow Chart of process



Measuring Process



Marking Process



Cutting Process



Assembling Process



Finishing Process

2.2 Gant Chart

NO	ACTIVITIES	WEEKS														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	PROJECT BRIEFING	Work planning	Work planning	Work planning	Work planning	Work planning	Work planning	Work planning								
2.	CONSULTATION WITH SUPERVISOR	Work planning	Work planning	Work planning	Work planning	Work planning	Work planning									
3.	PROJECT / RESEARCH ACTIVITIES	Implementation	Implementation	Implementation	Implementation	Implementation	Implementation									
4.	DRAFT REPORT 1	Implementation	Implementation	Implementation	Implementation	Implementation	Implementation									
5.	PRESENTATION DRAFT REPORT 1	Implementation	Implementation	Implementation	Implementation	Implementation	Implementation									
1.	CONSULTATION WITH SUPERVISOR						Work planning	Work planning	Work planning	Work planning	Work planning					
2.	PROJECT/ RESEARCH ACTIVITIES						Implementation	Implementation	Implementation	Implementation	Implementation					
3.	DRAFT REPORT 2						Implementation	Implementation	Implementation	Implementation	Implementation					
4.	PRESENTATION DRAFT REPORT 2						Implementation	Implementation	Implementation	Implementation	Implementation					
1.	CONSULTATION WITH SUPERVISOR											Work planning	Work planning	Work planning	Work planning	Work planning
2.	PROJECT/ RESEARCH ACTIVITIES											Implementation	Implementation			
3.	FINAL PROPOSAL											Implementation	Implementation			
4.	FINAL PRESENTATION											Implementation	Implementation			

Work planning	Work planning
Implementation	Implementation

3. Solution

The material used to upgrade TRADISIX 2020 has plywood (6mm) due to its lightweight nature and wrapped with a sponge (3mm) and songket fabric. The weight for TRADISIX 2020 is 4.5 kg.

In addition, the game storage area has the concept of 'drawstring pouch' which continues to be attached to the box. This requires non-scattered or cluttered open box compilation games.

Next, the concept of 'double-bottomed grip' is applied to the box holder. The type of rope used is 'cotton canvas'.

TRADISIX 2020 is not just for children. So TRADISIX 2020 will be made in two sets. 1 set for children aged 7 years and the second set is suitable for use from 12 years.

4. Benefit

The benefits obtained is that the community can recognize traditional games that have long been forgotten by the current generation. The community can also add knowledge about traditional games. Not only that, teachers can also make TRADISIX 2020 as one of the teaching aids during co-curricular activities in schools. This is because TRADISIX 2020 is suitable for use by children aged 7 years and above.

In addition, with the availability of TRADISIX 2020 can introduce traditional games found in Malaysia to foreign countries. It can also show the privileges and unique of traditional games that do not exist in their country.

Furthermore, the production of TRADISIX 2020 can generate the national economy. This is because, the process of making TRADISIX 2020 (appendix 3) does not depend on large machines. This makes the product easier to market.

5. Method of use

This product have several types of traditional game in one box. That product called TRADISIX 2020 can help children (7 years old – 12 years old) and adult to know about the traditional games which is outdated from now generation. The TRADISIX 2020 have six types of traditional game which consists of Congkak, Konda - kondi, Batu Seremban, Teng-teng, Dam and Gasing for adult set while for children set (7 years old – 12 years old) only switch Gasing to Rubber game.

This several games can help children (7 years old – 12 years old) and adult to know about traditional games and also can avoid the children from play with smartphone because it will cause only waste the time, get the bad effect versus good effect and not good for their eye if misused. Besides that, if compare with traditional game, it have many benefits and can always remind to next generation. For example, Congkak help children in hone their fine motor such as finger and also in calculate. In the Congkak and Dam game have two players in one game. Hence, for Konda-kondi, Batu Seremban, Teng-teng, Gasing, and also 'getah' this game will play with two players and above.

6. Conclusion

In conclusion, TRADISIX 2020 will be very useful product for those children (7 years old - 12 years old) and adult to know about traditional game and easy to play anywhere because TRADISIX 2020 light and comfortable to bring. Besides that, TRADISIX 2020 can be as learning aid because have six types of traditional game to the teaching staffs or teachers in student learning process. This is because have some schools and institutions like Polytechnic have a syllabus on traditional games in the co-curriculum subject.

Hope so the objective will achieve which is to help to glorifying traditional games with create the one special box who have six type of traditional game which comfortable to play, keep and bring to everywhere because use the light material.

7. Appendix

APPENDIX 1



APPENDIX 2

Type of games

