Enhanced Curriculum with the Integration of Indigenous Game to Physical Education in the different State Universities and Colleges (SUCs) in CARAGA Region, Philippines

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Abstract – The study was conducted to explore the need for integration of indigenous games to the Physical Education curriculum of the SSCT-Mainit Campus. It specifically looked into the level of performance of students exposed to indigenous games (experimental group) with reference to the following indicators: Piko (agility), Sipang bilangan gamit ang siko o ang likod nito (coordination), Chinese garter ten-twenty (Cardio-endurance) and Kadang kadang (balance and speed) and the level of performance of students not exposed to indigenous games (control group) with reference to the following indicators: Hexagon drill test (agility), Juggling (Coordination), 3-minute step test (cardio-endurance) and double walk (balance and speed).

This study utilized the experimental method to determine the effect of indigenous games to measure the level of performance of the students in PE courses using a quantitative method. A self-made rubric was utilized to gather the data.

Based on the findings, this conclusion was framed that Indigenous games like Piko, Takyang and Chinese Garter are proposed to be integrated into the curriculum.

Indigenous Games or Laro ng Lahi is highly recommended to integrate in the school programs or any related PE activities to measure the necessary skills instead of the traditional PE activities. Aside from building a child’s stamina and endurance against sickness, these games encourage among the youth social and community values of teamwork, cooperation, and constructive competition. As a people, we should be proud of our traditions from celebrating historical events to playing the games our forebears used to play.

Keywords: Indigenous Games, Laro ng lahi, or traditional games

INTRODUCTION

Traditional Filipino Games or traditional games in the Philippines are games commonly played by children, usually using native materials or instruments. Indeed, Laro ng Lahi offers salient values, characteristics and even skills enhancement which are vital to students’ total development vis-a-vis social, emotional, mental and physical aspects.

Due to limited resources of toys of Filipino children, particularly in the countryside, children usually come up on inventing games that need only of players themselves and common or locally available materials. This reality shows, however, the flexibility of a real human to think and act which makes the game more interesting and challenging.

The advent of information technology has ushered high-tech gadgets and computer games that have fascinated children and even adults. Computers and game gadgets are mostly played indoor, with less outdoor physical activity and bonding among brotherhood friends. In many urban and rural areas, however, a great majority of Filipino children still find time to play outdoor games with their neighborhood friends, as most of them are still unable to own expensive high-tech gadgets. Unlike children who grew up playing in the streets, some grew up with modern technology that doesn’t have “kababata” in their neighborhood, as their friends are contacted within the virtual scenario, “ka-Chat” at “Facebook” or “Skype”. Children need to have physical outdoor activity with real friends.
Traditional Games during the pre-Hispanic period naturally engaged in certain forms of physical activity incidental to their living with indigenous people, the game was a matter of survival of the fittest; meaning, the survival of the physically fit.

Playing the games in “Laro ng Lahi or Traditional Games or indigenous games helps our students developed health and endurance. Most of our traditional games like piko, patintero, luksong tinik, tumbang preso contributed much to the development of the total wellness of an individual. Filipinos are rich in culture and tradition. One of which can be seen in their games. Though simple, these games have social and cultural values (Sanches, 2009).

It has been observed that activities such as volleyball, basketball and other highly organized games being performed by the students in their PE classes have the same health benefits to offer when playing laro ng lahi. The components of physical fitness such as agility, speed, eye-hand coordination, balance and the like can be measured too.

The researcher, being a PE teacher, proposed that indigenous games should be given emphasis in teaching physical education by integrating it in the curriculum not only in elementary and secondary as well as in the tertiary level in such a way that there is a continuing process of developing health and fitness of individuals at the same time preserving and harnessing socio-cultural heritage awareness.

Article XIV, Section 14 of the 1987 Constitution provides that; “The state shall foster the preservation, enrichment and dynamic evolution of a Filipino National Culture based on the principle of unity in diversity in a climate of free artistic and intellectual expression.” Furthermore, Article II, Section 17 of the same constitution prescribes that “The state shall give priority of education, science, technology, arts, culture, and sports to foster patriotism and nationalism, accelerate social progress, and promote total liberation and development.”

In the Philippines, some people mentioned several statements regarding the Pinoy’s native games in Manila Bulletin, issued on the 17th of August, 2004. Former Tourism Secretary Roberto Pagdanganan stated that: “The Filipino Native Games can be an instrument in attracting tourists in the country. It may one day, be a part of international sporting events. Arnis for one has reached international shores. Many foreigners are coming in the country to study the authentic Filipino Martial Arts”. And also, the former First Gentleman Atty. Mike Arroyo said that our Philippine indigenous games and local sports are our cultural heritage. Those traditional games are also hoped to be integrated in our Physical classes to pursue the programs and objectives of propagating contemporary spirits among the masses by promoting and institutionalizing our traditional games as a means for physical fitness and recreation and as a way to inculcate values of our rich cultural heritage. This will eventually reset to the promotion, awareness and preservation and tradition.

There are timely efforts of the policymakers in order to harness the indigenous games into the trifocalized educational system of the country. One of which house Bill 809 introduced by Kabataan Party-List Rep. Raymond V. Palatino, an Act entitled as “Philippine Traditional Games and Sports Act of 2009 seeks to mandate the inclusion of the Philippine Traditional Games and Sports in all Physical Education (P.E.) courses of educational institutions at all levels, private and public and sports activities of local government units and for other purposes to preserve and promote the Philippine cultural heritage and national identity among the Filipino people, most especially the youth.

According to West (1994), every culture has a place at the trace of humanity. No culture is greater than the other. They are merely different. Artemio Barboza (2003) of the National Commission for Culture and Arts stated that: “Major studies of games pointed out those traditional games are shared communally within the Philippine context. The same situation exists in neighboring countries, especially in Indonesia.

It is also commonly known that games play an important role in the learning process of the child. This educational influence of games on the physical, mental, and moral vitality of a child is a factor why games in the country are still being practiced and observed by the general public.

In the book “A Study on Philippine Games (1988), author Mellie Leandicho Lopez noted that “laro” is the Filipino generic term for all forms of recreational play. Lopez also added that “participation of indigenous games
emphasizes physical development, skill training and maintenance, reinforcement of the communities. “The challenge is to trace and bring this rich indigenous heritage to life for everybody to share and actively join in the games.

These inspiring statements led several people and the researcher, who love to preserve the Filipino Culture and to strengthen the development of physical aspect to come up with the proposal of the inclusion of these games in the lecturing level, aside from Arnis.

Traditional sports and games are part of intangible heritage and a symbol of the cultural diversity of our societies. They are also an efficient means to convey values of solidarity, diversity, inclusiveness and cultural awareness. UNESCO works to preserve, promote and develop TSG, and to ensure that they form an integral part of national and development strategies. These will all enhance our end-goal of sport for peace and development.

Moreover, traditional games and sports reflect on different cultural expressions and create a bridge between cultures for better mutual comprehension.

With modernization, we have lost some of our socio-cultural heritage. Economic, social, and environmental changes such as disappearance closed-knit villages have led to the demise of some of our traditional games. Though simple, these games have cultural and social values. They encourage children to exercise their ingenuity and help develop their social skills, especially in fostering team spirit in school and in their neighborhood.

Yet, the Philippine traditional games and sports, like lukong tinik, patintero, sipa, and the recently declared National Sport, Arnis have a lot to boost in terms of creativity, recreation, ingenuity, athletic training, and social interaction. They are reflective of Philippine cultural values and develop traits such us camaraderie, sportsmanship and personal and team integrity. Collectively, these games and sports constitute a heritage. Filipino should be proud of.

To bring back this rich Filipino tradition, the Magna Kultura Foundation, an education-for-development NGO together with the Department of Education (DepEd) launched the Larong Pinoy Program in Public Elementary Schools in the Philippines. The objective of the program is to revive the interest of young students in the Filipino Traditional Games. The challenge is to create awareness on what Larong Pinoy is all about, and literally, it means bringing the games back in playgrounds and communities.

Aside from reviving the Filipino games in our country, the Larong Pinoy advocacy program aims to promote nationalism, strengthen family ties, involve the community in worthwhile activities, and keep the children in school through sports.

The advocacy to promote "Laro ng Lahi" is a timely crusade amidst the age of globalization and the rise of modern computer games and high-tech game gadgets.

According to Dodson (2000), contemporary community values are inextricably linked to experiences of the past. The preceding literature served as the basis for the researcher in conceptualizing and formulating the appropriate methodology of the study which anchored on the need for integration of indigenous games to the physical education curriculum of the college students of SSCT-Mainit campus as the basis for curriculum enrichment.

The research focused on the following inputs: significant difference between the level of performance of two (2) groups of students (indigenous games and non-indigenous games) the profile of PE teachers in terms of age, gender, civil status, highest educational qualification, length of service in teaching PE, the average number of students per class and relevant trainings; the profile of the students in terms of age, gender, civil status, course and year, health status and student performance in PE class.

As to the process, box data gathering was through library resources, construction of permission to conduct the study Experimental, video coverage, statistical treatment, percentage, T-test, and Pearson-r. This theoretical background and other related literature helped the researcher in formulating the research problems and really aided in the analysis of the data in formulating recommendations.
Data gathering through the self-made rubrics distributed to the respondents was done. Statistical treatment of data was also applied. The proposed integration of indigenous games to the college PE program is the output of the study.

**INPUT**

**PROFILE OF PE TEACHERS**
- Age
- Gender
- Civil Status
- Highest Educational Qualification
- Length of service in teaching PE
- Average number of students per class
- Relevant Trainings

**PROFILE OF STUDENTS**
- Age
- Gender
- Civil Status
- Course and Year
- Health Status
- Student Performance in PE class

**PROCESS**
- Data Gathering
- Library Resources
- Construction of Questionnaires
- Permission to conduct the study
- Quasi-Experimental
- Video Coverage
- Statistical Treatment
- Percentage
- T-test
- Pearson-r

**OUTPUT**
- Proposed College PE Program: Integration of Indigenous Games

**Fig.1 Conceptual Framework of the Study**

This study determined the need for integrating indigenous games in the Physical Education curriculum of college Students of SSCT- Mainit Campus, the findings of which were the basis for curriculum enrichment. Specifically answers to the following queries to be sought:

1. **What is the profile of the Physical Education Teachers in terms of?**
   1.1 Age;
   1. 2 Gender;
   1. 3 Civil Status;
   1.4 Highest Educational Qualification;
   1.5 Length of Service in teaching Physical education;
   1.6 Average Number of Students per Class;
   1.7 Relevant Trainings;

2. **What is the profile of the Physical Education students of SSCT-Mainit campus in terms of?**
   2.1 Age;
   2.2 Gender;
2.3 Civil Status;
2.4 Course and Year;
2.5 Health Status;
2.6 Student Performance in PE class;

3. What is the level of performance of the students?

3.1 Exposed to indigenous games (experimental group) with reference to the following indicators:

3.1.1 Agility (Piko)
3.1.2 Coordination (sipang bilangan o “takyang” gamit ang siko o ang likod nito)
3.1.3 Cardiovascular Endurance (Chinese Garter (ten-twenty))
3.1.4 Balance & Speed (Kadang-kadang o tiyakad)

3.2 Not exposed to indigenous games (control group) with reference to the following indicators:

3.2.1 Agility (hexagon drill test)
3.2.2 Coordination (juggling)
3.2.3 Cardiovascular Endurance (3-minute step test)
3.2.4 Balance & Speed (Double walk)

4. Is there a significant difference between the levels of performance of the students

4.1 Exposed to indigenous games (experimental group) base on the indicators?(Pls. refer to number 3 indicators)
4.2 Not exposed to indigenous games (control group) base on the standard PE activities?

5. What enriched curriculum can be proposed based on the findings of the study?

METHODS AND MATERIALS

This study utilized the experimental method to determine the effect of indigenous games to measure on the level of the performance of the students in PE courses using a quantitative method. In this evaluative study, informative data was taken from the teacher and student assessment of the performance skills regarding indigenous games as well as other competencies of physical education. Below are the following steps:

Step 1. The profile of the students was obtained.
Step 2. The control and the experimental group were established.
Step 3. The difference between the performances levels of the students based on the four (4) indicators, namely: Agility, Coordination, Cardiovascular Endurance, Balance and Speed were computed.

RESULTS AND DISCUSSIONS

This chapter presents the results of the data gathered in the study. The order of presentation is based on the problem posed in Chapter 1.
Profile of the Participants

The table presents the profile of the students in terms of age, sex, civil status, course and PE grade.

Table 1. Profile of the Students

<table>
<thead>
<tr>
<th>Variables</th>
<th>f (n=120)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 - 19</td>
<td>76</td>
<td>63.33</td>
</tr>
<tr>
<td>20 - 23</td>
<td>34</td>
<td>28.33</td>
</tr>
<tr>
<td>24 - 27</td>
<td>7</td>
<td>5.83</td>
</tr>
<tr>
<td>28 - 31</td>
<td>3</td>
<td>2.50</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>60</td>
<td>50.00</td>
</tr>
<tr>
<td>Female</td>
<td>60</td>
<td>50.00</td>
</tr>
<tr>
<td><strong>Civil Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>118</td>
<td>98.33</td>
</tr>
<tr>
<td>Married</td>
<td>2</td>
<td>1.67</td>
</tr>
<tr>
<td><strong>Course</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSED</td>
<td>20</td>
<td>16.67</td>
</tr>
<tr>
<td>BAT</td>
<td>61</td>
<td>50.83</td>
</tr>
<tr>
<td>BSAF</td>
<td>39</td>
<td>32.50</td>
</tr>
<tr>
<td><strong>PE Grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0 - 1.5</td>
<td>46</td>
<td>38.33</td>
</tr>
<tr>
<td>1.6 - 2.0</td>
<td>70</td>
<td>58.33</td>
</tr>
<tr>
<td>2.1 - 2.5</td>
<td>4</td>
<td>3.33</td>
</tr>
</tbody>
</table>

Table 1 shows the profile of the students. As to age, most of them belong to the age bracket of 16 -19 composed of 76 (63.33%), next is 20-23 with 34 (28.33%) students, followed by 24-27 with 7 students (5.83%) and finally 28-31 with 3 (2.50%) students. This shows that the usual age for first-year and second-year college students is in the range of 16 – 19. With the full implementation of K to 12 curriculum, this bracket range for first and second years is expected to change.

As to sex, 60 (50.00%) of the students are male and 60 (50.00%) are female. This ensures that there is normality in the sampling of the participants when it comes to sex. This is done to go away with the stereotype that PE activities are dominated by males. As to civil status, only 2 (1.67%) are married and most of the students are single 118 (98.33%). As to course, 61 (50.83%) are Bachelor of Agriculture students, 20 (16.67%) are Bachelor in Secondary Education students and 39 (32.50%) are Bachelor in Agro-Forestry Students.

Most of the students are taking the BAT course since SSCT Mainit Campus is an agricultural school. Finally, as to PE Grade, 70 (58.33%) belongs to the 1.6 – 2.0 bracket. 46 or 38.33% are in 1 – 1.5 brackets and only 4 (3.33%) are in 2.1 – 2.5 brackets. Based on this data, most of the students have an excellent understanding of PE concepts.

Table 2. Profile of the Teachers

<table>
<thead>
<tr>
<th>Variables</th>
<th>f (n=4)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 - 40</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>41 - 60</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3</td>
<td>75</td>
</tr>
</tbody>
</table>
Shown in the table above is the faculty profile of SSCT-Mainit Campus students who are currently handling PE subjects. As to age, 2 teachers (50%) is in the age bracket of 21 to 40, while the other 2 (50%) belong to 41 – 60. As to gender, 3 (75%) are male and only 1 (25%) is female. The same frequency is also observed in a civil status variable, wherein 3 are single and only 1 is married. All of the teachers obtained college graduates as their highest educational attainment.

As to the length of service, 3 (75%) belongs to 1 to 10 years, while 1 (25%) is in the 11 to 20 years. This suggests that most of the teachers are a neophyte in terms of handling PE subjects. All of the teachers (100%) have an average number of 30 to 45 students per class. As to relevant training attended, the majority or 75% have no training at all, while only 1 (25%) have attended 2 relevant pieces of training. This suggests again that most of the PE teachers have little to no training at all in teaching PE.

Table 3. Performance of Students in Indigenous Games

<table>
<thead>
<tr>
<th>Indigenous Game</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takyang</td>
<td>2.03</td>
<td>1.30</td>
<td>Students perform the rules but hit the sipa off the elbow or palm. He/she only performs 10-19 numbers of repetitions.</td>
</tr>
<tr>
<td>Kadang-kadang</td>
<td>2.30</td>
<td>1.26</td>
<td>Students execute the rule very nearly but not exactly. He/she shows difficulty to balance that result him/her to fall down easily. The performer consumes 26-29 seconds to finish the task.</td>
</tr>
<tr>
<td>Chinese Garter</td>
<td>2.53</td>
<td>1.14</td>
<td>Students execute the rule; however, his/her heart beat is 79-89 beats/min. for men and 85-98 beats/min for women. Students execute the rules very nearly but not exactly. Uses correct footwork to jump inside the designated boxes. Shows evidence of strong excitement of feelings all throughout the game. He/she consumes 11-15 seconds to finish the task.</td>
</tr>
<tr>
<td>Piko</td>
<td>3.07</td>
<td>0.74</td>
<td></td>
</tr>
</tbody>
</table>

Legend:

<table>
<thead>
<tr>
<th>Level</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4.0-3.25</td>
</tr>
<tr>
<td>3</td>
<td>3.24-2.50</td>
</tr>
</tbody>
</table>
Table 3 shows the collective performance of the students in indigenous games. Overall, students got the highest mean in Piko (mean = 3.07, SD = 0.74). This performance is interpreted as “students can execute the rules very nearly but not exactly. Uses correct footwork to jump inside the designated boxes. Shows evidence of strong excitement of feelings all throughout the game. He/she consumes 11-15 seconds to finish the task.” This is followed by Chinese Garter (mean = 2.53, SD = 1.14), which can be interpreted as “Students execute the rule, however, his/her heartbeat is 79-89 beats/min. for men and 85-98 beats/min for women.” Next, is kadang-kadang (mean = 2.30, SD = 1.36), interpreted as “Students execute the rule very nearly but not exactly. He/she shows the difficulty to balance that result in him/her to fall down easily. The performer consumes 26-29 seconds to finish the task.” Finally, students got the lowest mean in Takyang which is only 2.03 (SD = 1.30), verbally interpreted as “Students perform the rules but hit the sipa off the elbow or palm. He/she only performs 10-19 numbers of repetitions.” The standard deviation ranges from 0.74 to 1.30. This suggests that students’ performance in all of these indigenous games is normally distributed and is within the acceptable range of +2SD from the mean (LABCe, 2015).

In general, it can be noted that the students’ mean performance in Indigenous Games ranges from 2.03 to 3.07, which is from Level 2 to Level 3 only. This shows an alarming result and can be attributed to the fact that indigenous games are slowly overshadowed by the advent of computer games. According to Anonuevo and De Los Santos (2003), indigenous games that emphasize social interactions are being eclipsed very rapidly by videogames and network games. The study of Julie Ann Dumlao and Charmaine Lada (2002) of network games suggests that these post-modern games are producing a new play culture among the youth. Such play culture is characterized by the following: preference for fantasy and unrealistic situations, or characters, network gamers are impersonal and unmindful of the external environment, individualistic, lacks emotional interaction, they have lesser knowledge in manipulating the natural environment, and they no longer play outside.

<table>
<thead>
<tr>
<th>Traditional PE activities</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juggling</td>
<td>2.40</td>
<td>1.22</td>
<td>Student performs the rule but hit the material off the palm. He/she makes 30-39 numbers of repetitions.</td>
</tr>
<tr>
<td>Double Walk</td>
<td>1.70</td>
<td>1.02</td>
<td>Student shows difficulty of executing the rules. Depend on the partner to tell him/her what to do. Little communication with partner and little evidence of teamwork. He/ she perform the task for 40 seconds and above.</td>
</tr>
<tr>
<td>3 min step test</td>
<td>2.83</td>
<td>1.15</td>
<td>Student executes the rule; however, his/her heart beat is 79-89 beats/min. for men and 85-98 beats/min for women.</td>
</tr>
<tr>
<td>Hexagon Drill</td>
<td>3.10</td>
<td>0.88</td>
<td>Student executes the rules appropriately; however, the student shows evidence of fatigability or breaths obviously in performing the skills. He/she jumps in 11-15 seconds to finish the rounds.</td>
</tr>
</tbody>
</table>

Legend:

<table>
<thead>
<tr>
<th>Level</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4.0-3.25</td>
</tr>
<tr>
<td>3</td>
<td>3.24-2.50</td>
</tr>
<tr>
<td>2</td>
<td>2.49-1.75</td>
</tr>
<tr>
<td>1</td>
<td>1.74-1.0</td>
</tr>
</tbody>
</table>
It can be gleaned from Table 4 that the highest mean in traditional pe activities is hexagon drill (mean = 3.10, sd = 0.88) verbally interpreted as “student executes the rules appropriately, however, the student shows evidence of fatigability or breaths obviously in performing the skills. He/she jumps in 11-15 seconds to finish the rounds.” the second is 3 min step test with a mean of 2.83 and a standard deviation of 1.15 which means that “student executes the rule, however, his/her heartbeat is 79-89 beats/min. For men and 85-98 beats/min for women.” third, is juggling (mean = 2.40, sd = 1.22), interpreted as “student performs the rule but hit the material off the palm. He/she makes 30-39 number of repetitions.” students got the lowest mean in the double walk which has a mean of 1.70 and a standard deviation of 1.02 interpreted as “students show the difficulty of executing the rules. Depend on the partner to tell him/her what to do. Little communication with partners and little evidence of teamwork. He/ she performs the task for 40 seconds and above.” the standard deviation ranges from 0.88 to 1.22 which is in line with the acceptable range of + 2sd from the mean as set by lace, 2015.

In general, students’ performance in traditional pe activities ranges from 1.70 to 3.10 which is from level 1 to level 3. Students generally have a hard time in doing the double walk since it is a dual activity and it depends on teamwork and communication. This suggests that along the way in doing the task, miscommunication happened which resulted in getting the low score. One reason of this could be due to technological innovations in communication which paradoxically results to low communication skills. Brown (2013) in her study “are we becoming more socially awkward? An analysis of the relationship between technological communication use and social skills in college students,” she explored the relationship between those who frequently used technological communication vis a vis communication skills. It was found out that ultimately, communication preference strongly correlated with poor social skills and high social anxiety, while a greater restriction of technology in youth correlated with high social skills in college. On the other hand, students’ performed best in the hexagon drill. However, along the way of doing the task, fatigue and breathing difficulty sets in and hinders them in getting the perfect score of 4.

Table 5. T-test on the level of performance between indigenous games and traditional PE activities

<table>
<thead>
<tr>
<th>Skills</th>
<th>Game</th>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agility</td>
<td>Piko</td>
<td>3.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hexagon Drill</td>
<td>3.10</td>
<td>0.205158</td>
<td>29</td>
<td>0.838882</td>
<td>Failed to reject Ho</td>
</tr>
<tr>
<td>Coordination</td>
<td>Juggling</td>
<td>2.40</td>
<td>0.366667</td>
<td>29</td>
<td>0.133059</td>
<td>Failed to reject Ho</td>
</tr>
<tr>
<td></td>
<td>Takyang</td>
<td>2.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular Endurance</td>
<td>Chinese Garter</td>
<td>2.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Min Step Test</td>
<td>2.83</td>
<td>-1.27323</td>
<td>29</td>
<td>0.213048</td>
<td>Failed to reject Ho</td>
</tr>
<tr>
<td>Balance and Speed</td>
<td>Kadang-kadang</td>
<td>2.30</td>
<td>2.381998</td>
<td>29</td>
<td>0.023997</td>
<td>Reject Ho</td>
</tr>
<tr>
<td></td>
<td>Double Walk</td>
<td>1.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Marked differences are significant at p < .05000. All confidence interval is set at 95%.

Shown in Table 5 is the t-test on the level of students’ performance between indigenous games and traditional PE activities. Among the students in SSCT-Mainit Campus performing agility tasks, there was no statistical difference between Piko (Mean = 3.07) and Hexagon Drill (Mean = 3.10) where \( t(29) = 0.205158 \) and \( p = 0.838882 \). No statistical difference was also detected in coordination tasks between Juggling (Mean = 2.03) and Takyang (2.40), \( t(29) = 0.366667, p = 0.133059 \). The same result is also found in Cardiovascular Endurance tasks between Chinese Garter (Mean = 2.53) and 3 Minute Step Test (Mean = 2.82), \( t(29) = -1.27323, p = 0.213048 \).

These results shows that as to Agility, Coordination, and Cardiovascular endurance, the students performance do not significantly differ regardless whether they are doing indigenous games or traditional PE activities. Further, these also suggest that when testing these three components, the teacher can substitute the indigenous games to their counterparts in traditional PE activities. For instance in testing for agility, the PE teacher can use Piko instead of Hexagon Drill and vice versa, since there exist no significant difference between these activities. This is also true for testing coordination, where the teacher may opt for Takyang instead of Juggling and testing cardiovascular endurance where Chinese Garter can be used instead of 3 Min Step Test. The use of indigenous games in lieu of traditional PE activities is strongly encouraged. Aside from building a child’s stamina and endurance against sickness, these games encourage among the youth social and community values of teamwork,
cooperation and constructive competition. As a people, we should be proud of our traditions from celebrating historical events to playing the games our forebears used to play.

The ingenuity and resourcefulness of such games are reflective of the Filipino character of sportsmanship, fair play, team effort and fun. And as the games are played by siblings, relatives and neighbors, Filipino traditional games reinforce close family ties and a sense of belongingness to a community, (David, 2009).

On the other hand, among the students in SSCT Mainit Campus performing Balance and Speed, there was a statistically significant difference between Kadang-kadang (Mean = 2.30) and Double Walk (Mean = 1.70), t(29) = 2.381998 and p = 0.023997. This suggests that in testing for Balance and Speed, the use of Kadang-kadang instead of Double Walk and vice-versa is not practical, since statistical evidence shows that they are not compatible with one another. Interestingly though, students are more at ease with Kadang-kadang than Double Walk. This could mean that the students are familiar enough with the concept and mechanics of this indigenous game rather than the Double Walk.

In general, it can be noted that the students’ mean performance in Indigenous Games ranges from 2.03 to 3.07, which is from Level 2 to Level 3 only.

It can be gleaned from Table 3 that the highest mean in Traditional PE activities is Hexagon Drill (mean = 3.10, SD = 0.88). Second is 3 min step test with a mean of 2.83 and standard deviation of 1.15. Third is Juggling (mean = 2.40, SD = 1.22). Students got the lowest mean in Double Walk which has a mean of 1.70 and a standard deviation of 1.02. The standard deviation ranges from 0.88 to 1.22 which is in line with the acceptable range of ± 2SD from the mean as set by LABCe, 2015.

The t-test on the level of students’ performance between indigenous games and traditional PE activities shows that among the students in SSCT Mainit Campus performing agility tasks, there was no statistical difference between Piko (Mean = 3.07) and Hexagon Drill (Mean = 3.10) where t(29) = 0.205158 and p = 0.838882. No statistical difference was also detected in coordination tasks between Juggling (Mean = 2.03) and Takyang (2.40), t(29) = 0.366667, p = 0.133059. The same result is also found in Cardiovascular Endurance tasks between Chinese Garter (Mean = 2.53) and 3 Minute Step Test (Mean = 2.82), t(29) = -1.27323, p = 0.213048.

CONCLUSIONS

The majority of the PE students of SSCT-Mainit campus were single and of the same age bracket and had a high regard to the call of our nation, to improve our economic stability by taking up Bachelor of Agricultural Technology. Among the students in the SSCT Mainit Campus performing Balance and Speed, there was a statistically significant difference between Kadang-kadang and Double Walk. This suggests that in testing for Balance and Speed, the use of Kadang-kadang instead of Double Walk and vice-versa is not practical since statistical evidence shows that they are not compatible with one another. Interestingly, though, students are more at ease with Kadang-kadang than Double Walk. This could mean that the students are familiar enough with the concept and mechanics of this indigenous game rather than the Double Walk.

2 PE teachers of SSCT-Mainit Campus were in the age bracket of 21 to 40, while the other 2 belongs to 41 – 60. As to gender most of them were male and only were female. The same frequency was also observed in civil status variable, wherein majority were single and only 1 is married. All of the teachers obtained college graduates as their highest educational attainment.

As to the length of service, 3 of them belong to 1 to 10 years, while 1 of them was in the 11 to 20 years. Most of the teachers were neophyte in terms of handling PE subjects. All of the teachers had an average number of 30 to 45 students per class. As to relevant training attended, the majority of the faculty had no training at all, while only 1 had attended 2 relevant pieces of training. It was observed again that most of the PE teachers had little to no training at all in teaching PE.

The students’ performance in traditional PE activities ranges from 1.70 to 3.10 which is from Level 1 to Level 3. Students generally have a hard time in doing the double walk since it is a dual activity and it depends on teamwork.
and communication. On the other hand, students’ performed best in Hexagon Drill. However, along the way of doing the task, fatigue and breathing difficulty sets in and hinders them in getting the perfect score of 4.

The results show that as to Agility, Coordination, and Cardiovascular endurance, the students’ performance does not significantly different regardless of whether they are doing indigenous games or traditional PE activities. Further, these also suggest that when testing these three components, the teacher can substitute the indigenous games to their counterparts in traditional PE activities. For instance, in testing for agility, the PE teacher can use Piko instead of Hexagon Drill and vice versa, since there exists no significant difference between these activities.

This is also true for testing coordination, where the teacher may opt for Takyang instead of Juggling and testing cardiovascular endurance where Chinese Garter can be used instead of 3 Min Step Test. The use of indigenous games in lieu of traditional PE activities is strongly encouraged. Aside from building a child’s stamina and endurance against sickness, these games encourage among the youth social and community values of teamwork, cooperation, and constructive competition. As a people, we should be proud of our traditions from celebrating historical events to playing the games our forebears used to play.

The ingenuity and resourcefulness of such games are reflective of the Filipino character of sportsmanship, fair play, team effort, and fun. And as the games are played by siblings, relatives, and neighbors, Filipino traditional games reinforce close family ties and a sense of belongingness to a community.

RECOMMENDATIONS

Premised on the conclusions, the following recommendations are offered:

Indigenous games like Piko, Takyang and Chinese Garter is proposed to be integrated in the curriculum. The faculty strongly recommend introducing laro ng lahi to measure the necessary skills instead of traditional PE activities. Aside from building a child’s stamina and endurance against sickness, these games encourage among the youth social and community values of teamwork, cooperation, and constructive competition. As a people, we should be proud of our traditions from celebrating historical events to playing the games our forebears used to play.

Indigenous Games or Laro ng Lahi is highly recommended to integrate into the school programs or any related PE activities to promote and preserve Filipino culture, patriotism, and nationalism of every individual.

The researcher further recommends for the integration of indigenous games to the physical education curriculum of SSCT-Mainit Campus students. Further study is recommended to explore other benefits of indigenous games or laro ng lahi.

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