The Effectiveness of Conservation Athletic Games for Non-Formal Education Learning Primary School Age

Ricka Ulfatul Faza¹, Rumini², Donny Wira Yudha Kusuma¹

¹Pascasarjana, Universitas Negeri Semarang, Indonesia
²Fakultas Ilmu Keolahragaan, Universitas Negeri Semarang, Indonesia

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Abstract

Athletics is one of the elements of physical education as well as a component of overall education that prioritizes physical activity. This study aims to analyze the effectiveness of conservation athletic game products for elementary students. This research is done using a research and development approach. The development model used is the ADDIE model which includes analysis, design, development, implementation, and evaluation. The development of conservation athletic games includes: 1) Lompat galah; 2) Roket; 3) Sunda manda; 4) Gapar; 5) Gayap; 6) Lompat tali; 7) Lari; 8) Zona rotasi; 9) Balap karung; 10) Lempar sasaran; 11) Gelindingan ban; 12) Estafet. The small-scale trial was given to 17 students at SDN 2 Honggosoco. A large-scale trial was conducted on 170 elementary school students in Kudus Regency. The results of this study stated that the results of physical education teachers showed the category of “Excellent” with a percentage of “100%”. The results of the small-scale trial showed the category of “Excellent” with a percentage of “100%”. The results of large-scale trials showed an “Excellent” category with a percentage of “98.50%”. Conclusions indicate that athletic conservation is very effective for the learning of physical education of athletic materials in primary schools.
INTRODUCTION

Physical education could give opportunity child to come as well as in various variety experience learning done through activity systematic movement. Physical education process said succeed if the model and method the learning has customized with curriculum and characteristics ability that will achieved. Physical education own impact positive to growth and development, including physical, mental, emotional, social and intellectual in children (Fadli, 2014; Syahrin et al., 2017; Putra & Bafirman, 2020).

One learning Physical education that has many number is athletics. Athletics originated from Greek "Athlon" which means "contest". Motion the foundation of athletics has done since start civilization man in front of this world. If reviewed through aspect existing movement in Athletics as throw, walk, run and jump is motion basic human often do. Besides that Athletics Becomes vehicle in Physical Education in develop skills and develop values humanities. Even Athletics has Becomes part from element physical education at a time component from education by overall priority activity physical, development physical, organic, neuromuscular, intellectual, social, emotional and mental harmony, harmony and balance as well as construction life healthy. However reality still there is participant students who haven't interested learning Athletics even no liked. Because of that required creativity and innovation from a physical education teacher in order to cultivate and develop learning so that you can influence student for enthusiastic to learning athletics, one of them that is with enter element play and fun (Febrianti, 2015; Idris, 2016; Kristiantono, 2017; Model et al., 2017; Shipherd et al., 2019).

Presentation Physical education learning specifically Athletics a physical education teacher should pack Theory in accordance with level grow and bloom participant educate. This thing own the goal for participants educate could reach objective from education by holistic. Of course, in terms of affective, psychomotor, cognitive. Creativity a physical education teacher has useful implications in to design effective learning materials for learning programs. Good learning let done with nice atmosphere and stay refers to the claim from implementation appropriate learning with Permendikbud Number 64 about standard contents 2013 curriculum. Therefore, it is needed means, models, strategies, approaches, and methods learning physical education so that you can teach Athletics with true and fun (Hasan et al., 2015; Sobarna, 2016; Islam et al., 2018; Hanief et al., 2018; Berntsen & Kristiansen, 2019).

Play and game are very close with pattern development child. Through game this, by no direct power think child could developed. Activity played is one method for could balancing Among brain right and brain left. One game that can integrated with physical education is game traditional, because movement in game traditional there is motion locomotor, non- locomotor and locomotor movements manipulative. Besides that game traditional capable stimulate aspect development in children, pregnancy element education physical, tenacity, accuracy, power thought, and agility. Through game traditional could made as development mastery movement and planting values character, formation physical, development personality, mental and social. Besides that could made as conservation culture inheritance from grandmother ancestors Indonesian nation (Nurhayati, 2012; Deritani & Articles, 2014; Pertiwi & Aliyah, 2017; Pratama & Barlian, 2019; E. Seran & Kurniati, 2019; Mahmud, 2019; Adi et al., 2020; Rachmawati et al., 2020; Anwar et al., 2020).

Moment this game traditional seldom play and start abandoned. This thing naturally caused by development technology. More children like is at in front of screen gadgets or game console and shift to modern games like online games and playstation. As a result he left or replaced game traditional with modern game, of course could threaten the presence of one asset worried about Indonesian culture the more eroded by time. Whereas game traditional already there is since before as inheritance from ancestors nation Indonesia and thick with values wisdom local (Deritani et al., 2014; Pertiwi & Aliyah, 2017; Pratama & Barlian, 2019; E. Seran & Kurniati, 2019; Mahmud, 2019; Adi et al., 2020; Rachmawati et al., 2020; Anwar et al., 2020).
Moment this education needed is capable education integrated Among education character and who can optimizing grow flower whole dimensions in children, but also appropriate with curriculum that has been set. Through the researcher’s ADDIE model analyze, design, develop, implement, and evaluate tool learning athletics. Based on background behind above, author feel summoned for try develop tool learning effective athletics as well as combined with game traditional. Formulas problem in article this is how effectiveness game Athletics Concert for Learning Physical Education in Schools base. Objective from study this is for analyze effectiveness game Athletics Concert for Learning Physical Education in Schools base.

**METHOD**

Research this done with use approach *research and development*. Development model used is the ADDIE model which includes covers *analysis*, *design*, *development*, *implementation* and *evaluation*. Subject research on testing small are 17 students who attend SD N 2 Honggosoco, Kecamatan Jekulo Kudus District. Whereas subject testing group big namely 170 students who attend SD/MI in Kudus Regency. Technical data analysis using descriptive percentage for analyze and assessment subject development in evaluate level appropriateness quality and acceptability the resulting product.

Formula used for count percentage is as following:

\[ P = \frac{f \times 100}{n} \]

**Table 1 Criteria Evaluation**

<table>
<thead>
<tr>
<th>Rating Scale</th>
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</tr>
</thead>
<tbody>
<tr>
<td>80 – 100%</td>
<td>Very Good</td>
<td>A</td>
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<td>Well</td>
<td>B</td>
</tr>
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<td>C</td>
</tr>
<tr>
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<td>D</td>
</tr>
<tr>
<td>0 – 40%</td>
<td>Very less</td>
<td>E</td>
</tr>
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Quantitative data analysis techniques in study this use analysis statistics descriptive that is in the form of very less, less, enough, good and very good statements that were changed into quantitative data with scale 5 through scoring start from numbers 1 to 5. The steps taken in data analysis includes: 1) collection of rough data; 2) Giving score; 3) Score obtained then converted Becomes mark with a scale of 1 to 5. For calculate the average score use formula following:

\[ M = \frac{f}{n} \]

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RESULTS AND DISCUSSION

Product development tool learning the resulting _ given name Athletics Conservation . this tool own function on material athletics . Student could use it with easy , practical and efficient . Product Athletics Developed conservation _ for make it easy students and teachers in Physical Education learning on the material athletics . Athletics Conservation is modification from Athletics with game traditionally made _ as means conservation culture archipelago , as means development mastery movement and planting values character and character fun recreation _ for students . Athletics and games traditional could integrated because in Athletics there is motion base jump , throw and run that becomes motion dominant in game traditional (Munawaroh, 2017 ; Burhaein, 2017 ; Syamsurrijal, 2020) .

Trials on teachers are given to 11 physical education teachers Elementary School in Kudus Regency . Trial _ implemented to the physical education teacher after got guidance from researcher about ways , uses and benefits from Athletics Conservation . After Step usage , teacher fill the questionnaire given To use know how much big related teacher assessment product Athletics Conservation that has been used . Data obtained through questionnaire could seen in Table 3 and Figure 1 below this :

<table>
<thead>
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<th>Table 3 Effectiveness Development of Tools for Physical Education Teacher Trials</th>
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<tbody>
<tr>
<td>Aspect Evaluation</td>
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<tr>
<td>Aspect Tool for Learning</td>
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<td>Aspect Tool Effectiveness</td>
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(Source : Research Results 2021)
Diagram of Tool Development in Small-Scale Trials

<table>
<thead>
<tr>
<th>Aspect Evaluation</th>
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<th>Yes</th>
<th>No</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0%</td>
<td></td>
<td>Very Good</td>
</tr>
<tr>
<td>Aspect Tool Effectiveness</td>
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<td>0%</td>
<td></td>
<td>Very Good</td>
</tr>
</tbody>
</table>

(Source: Research Results 2021)

Figure 2 Effectiveness Tool Development in Small-Scale Trials (Source: Research Results 2021)

Trial _ scale small given to 17 students at Public Elementary School 2 Honggosoco, Kecamatan Jekulo, Kudus Regency. Trial _ use the respondent is child 5th grade. In trials this child demonstrate Athletics Conservation with teacher supervision. Researcher start with show animation video Athletics Conservation containing _ Miscellaneous tool from Athletics Conservation, way use, and assessment. Then researcher introduce one by one tool from Athletics Conservation.

Every student given opportunity for try all tool for know effectiveness tool at the moment used on students. After tool tried by students, students given a questionnaire containing evaluation about product Athletics Conservation. After all student done fill in questionnaire held ask answer Among researchers and students for know suggestions for improvement and comments student about Athletics Developed conservation. _ Data obtained through questionnaire on trial scale small could seen in Table 4 and Figure 2 below this:

Trial _ scale big conducted on 170 SD/MI students in Kudus Regency. Objective doing a test scale big is for know and identify Strengths, Weaknesses, Weaknesses or mistakes in athletics _ _

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Table 4 Effectiveness Tool Development in Small-Scale Trials

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<th>No</th>
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<td>100%</td>
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<td></td>
<td>Very Good</td>
</tr>
</tbody>
</table>

(Source: Research Results 2021)
Conservation. Trial carried out by SD/MI in the sub-district Jekulo, Kudus Regency, including namely; SD N 1 Honggosoco, SD N 4 Honggosoco, SD N 5 Honggosoco, SD N 1 Hadipolo, SD N 4 Hadipolo, SD N 6 Hadipolo, SD N 2 Karangbener, SD N 3 Karangbener, MI NU Miftahul Ulum 01 and MI NU Miftahul Ulum 02. In trial scale big this use the respondent is child class above, that is grades 4, 5 and 6. In the trial this is a test uses practiced tools directly by students with teacher supervision and researcher give briefing about method use Athletics Conservation. Every student given opportunity for try all tool for know effectiveness tool Athletics Conservation. After student try Athletics Conservation, students given a questionnaire containing evaluation about product Athletics Conservation.

After all student done fill in questionnaire held ask answer Among researchers and students for know suggestions for improvement and comments student about Athletics Developed conservation. Data obtained through questionnaire on trial scale small could seen in Table 5 and Figure 3 below this:

### Table 5 Effectiveness Tool Development in Large-Scale Trials

<table>
<thead>
<tr>
<th>Aspect Evaluation</th>
<th>Answer Results</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspect Tool for Learning</td>
<td>Yes 98.66% No 1.34%</td>
<td>Very Good</td>
</tr>
<tr>
<td>Aspect Tool Effectiveness</td>
<td>Yes 98.33% No 1.67%</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

(Source: Research Results 2021)

![Diagram of Tool Development in Large](image)

![Figure 3 Effectiveness Tool Development in Large-Scale Trials](image)

Learning process no could in progress by good without endorsement from the right medium. Appropriate learning media with need activity learning could create condition effective learning as well as efficient so that the material presented by the teacher to student can absorbed optimally. Achievement effectiveness in Physical education learning based on criteria, including that is teacher’s ability in manage learning with good, active student in follow learning, response positive from students.
At the time study taking place, the students involved in study this happy and enthusiastic when play game Athletics Conservation. Students with easy play game Athletics Conservation. However, ADHD students experience difficulty in several game Athletics Conservation as in 1) Gapar; 2) Jump rope; 3) Throw Rotation; 4) Throw Target; and 5) Tire Rollers. ADHD students need treatment special and intense, they should explained return method played Athletics Conservation and awarded example over and over again. ADHD students tend to alone and not active in game according to they difficult. When normal students play several times though has try, ADHD child only repeat the game they like as well as avoid hard game for them. Disturbance Centering Attention and Hyperactivity (GPPH) or usually called with Attention Deficit Hyperactivity Disorder (ADHD) is a pattern behavior no want to silence, no put attention and impulsiveness (at will) himself. Hyperactivity also refers to the inability to in control herself alone. ADHD students have three characteristics symptom that is hyperactivity, inattention and impulsivity. With condition symptom as that ADHD students need got approach special as attention more and patient handling without To do action Rough or punish because could influence mental state in self ADHD students (Anjani, 2013; Septiana et al., 2016; Kusumawati & Nugroho, 2019; Salim et al., 2020).

Game Athletics Conservation which is collaboration from athletics and games traditional that has variety benefits. If reviewed from aspect psychological could stimulate intelligence compound in students, grow values character in students, develop intellectual, develop cognitive, train control emotion, increase creativity and grow concentration and strategy (Satwika et al., 2017; Mahmud, 2019; Arumi, 2019; Mashuh, 2020; Trismiahwati & Sari, 2020).

Game traditional as Sunda manda could help Upgrade ability motor rude to students especially in the aspect balance body. Gatrik Jump rope could used for Upgrade kinesthetic intelligence in children 1-12 years old by easy, safe, effective and attractive. Jump rope and gatrik can also practice agility. Racing sacks and tire rollers can practice balance and speed. Besides that practice student for compete by fun. Broadly speaking game traditional character educational, contains element education physical, intelligence, power thought, agility, freshness psychological, appreciation artistic, as well practice motor gross and motor fine (Purnamasari et al., 2013; Rahmawati et al., 2017; Hidayanti, 2017; Rahayu & Firmansyah, 2019; Horunisa & Cahyati, 2020; Fitriyadi, Slamat, Iip Istrahayu, 2020; Handayani & Irawan, 2021).

From a motor point of view, the Conservation Athletics game can train students' motor skills to be smoother, more perfect, and well coordinated, practice self-control to perform body movements and train balance. (Istiqomah & Suyadi, 2019).

From a socio-cultural perspective, the Conservation Athletics game can lead students to explore, experiment, and cultivate a leadership spirit. In the Conservation Athletics game there are traditional games that contain noble meanings in them, such as religious values, educational values, norms, and ethics, all of which will be useful in social life. The Conservation Athletics game also contains the values of togetherness, honesty, responsibility, open-mindedness, mutual cooperation, encouragement of achievement, and obedience to the rules. Play activities can stimulate children's social skills such as practicing sympathy, patience, empathy, friendliness, independence, honesty, familiarity with others and students' self-confidence. Students can also learn to socialize, communicate, respect the opinions of others and participate in preserving Indonesian culture in the form of traditional games (Khasanah et al., 2011; Alvisari, 2017; Mahmud, 2019; Rozana, 2020; Aqubah et al., 2020).

Effectiveness Athletics Conservation is as following:
1) Size stick pole is 2 meters with length that can be customized in accordance level comfort user.
2) Rocket pole with a length of 45 meters.
3) Long sundae manda is 2.1 meters. Every box own large 0.3 meters and section end half circle has a diameter of 0.6 meters.
4) Gagar length is 0.15 meters long and 0.04 meters wide. For long stick gap is 0.2 meters.
5) goal height is 2 meters.
6) Length of rubber used is 2 meters.
7) track length run is 40 meters.
8) Diameter of the bracelets throw rotation is 0.15 meters.
9) Fabric height racing bag is 0.6 meters with a diameter of 0.5 meters.
10) Ball on throw target with a diameter of 0.13 meters.
11) Tires used on bicycle tire rollers with ring size 12.
12) Stick relay has a length of 280 mm and a diameter of 20 mm.

Superiority product results study this is as following:
1) Give convenience student in learn Physical education on the material athletics in elementary school.
2) Make it easy for teachers in convey Theory base Athletics in Elementary School.
3) Athletics Conservation character portable that can moved and carried with easy.
4) Athletics Conservation be equipped with book guides, video games and cards game.
5) Athletics Conservation could Becomes reference for school level next.
6) make it easy Physical education learning Theory athletics in elementary school.
7) Could used for sport recreation as outbound and so on.

Limitations study in product Athletics conservation this is as following:
1) Athletics Conservation designed for size student Elementary School.
2) Product Athletics Conservation belong to a lot.

CONCLUSION

Conservation Athletics is very effective for athletic learning for elementary school students. This is evidenced by the results of the study which showed a very good category. Physical education teachers should strive to provide better facilities and create a comfortable learning environment to support the learning process and student achievement in Physical Education subjects, because with representative facilities it will increase student learning motivation, so learning achievement can continue. Conservation Athletics can be used as a practical and portable learning media and learning resource for elementary school students as well as to improve affective, cognitive and psychomotor aspects. Conservation Athletics can be used as a reference for the development of further tools.

REFERENCE


