

# The Game-Based ABC Running Exercise Model for Children Ages 6-12 Years

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**Abstract :** *The aim of this study is to produce the game-based ABC running exercise model for children ages 6-12 years by testing the effectiveness of increasing the speed of 30 meters short distance running in athletes aged 6-12 years. The research method used in this study is the research and development method of Borg and Gall by using 10 stages. The research subjects in this study are at the age of 6-12 years of athletic at the athletic club in the Special Region of Yogyakarta. The study begins with a data analysis of requirements, planning, product making, testing, revision and final products. The model feasibility test presents 3 experts consisting of 2 athletic lecturers and 1 national athletic trainer. The effectiveness test model uses a 30 meters speed parameter test involving 40 athletes aged 6-12 years consisting of 2 athletic clubs in Yogyakarta Province. Increasing the running speed of 30 meters shows the significance of  $t$ -count = 45.64,  $db = 19$  and  $p$ -value =  $0.00 < 0.05$ , for the average  $N$ -gain of 56.30, which means that the category of interpretation is "quite effective". This means that there are significant differences in the 30 meters run speed of athletes before and after being given a training model. It can be concluded that the game-based ABC running exercise model developed is effective enough to increase the running speed of 30 meters in athlete's ages 6-12 years.*

**Keywords :** *exercise; ABC running; game; aged 6-12 years.*

## I. Introduction

The development of sports in the 21st century is so rapid, as well as with athletic sports. Each country competes to develop and research new breakthroughs in the form of methods or products of training and learning. Speaking of sports, we feel we cannot escape from the goal of achievement, education, or just recreational entertainment. As already stated, that the scope of sports is so complex depending on the objectives chosen by the community. Closely related to the field of competitive sports (achievement), good sports performance if developed and applied to young people both from an early age to school productive age teenagers (Candra & Rumini, 2015).

Athletics has a number of events that are pretty much around 50 numbers including races. Race numbers have different characteristics of motion activity. The number of types of character of the motion, must also be applied to the types of exercises that are in accordance with the character of each movement. One type of motion activity is run. As it might be spread in the community that running activities are the easiest to do, but if viewed from the study of athletic science is correct that there are techniques that must be mastered when carrying out these activities with the aim of avoiding injury, getting optimal motion efficiency, and maximum benefit. Described in the IAAF (International Association of Athletics Federations) book entitled RUN! JUMP! THROW! The Official IAAF Guide to Teaching Athletics that the fundamentals of running can be done by basics exercise running (Ritdorf, Harald Muller; Wolfgang, 2009). The exercise is carried out to improve the ability of acceleration, balance, coordination and speed which will contribute to the improvement of running techniques if done with the right movement while also functioning to train speed. According to, Jonath / Krempel described by Syafruddin (2011: 133-135) the ability of speed is limited by factors such as

muscle strength, muscle viscosity, reaction speed, contraction velocity, coordination and anthropometric characteristics (Adil, Tangkudung, & Sofyan Hanif, 2018).

Running numbers are numbers that are contested in athletic sports, running numbers are often referred to as non technics, because running is a natural activity that is relatively simple and easy to do. It is not simple for a run number, the emphasis on speed and resistance is determined by the distance of the race, crouching start in sprint race turnover the stick in relay run and the presence of obstacles in the Hurdling number that all make the technical demands for athletes to be prepared. According to Ballesteros, the physical component that is relatively needed for sprinting is speed, according to the notion that "sprint" means running as fast as possible (Priyono, 2019).

Ali Priyono (2019) said that the practice of acceleration, balance and coordination running (ABC running) can improve the results of sprint learning (Priyono, 2019). Increasing running speed can be achieved through proper ABC running training. The study explained that there was a significant effect on the ABC Running exercise on improving the results of sprint learning in children.

The importance of correct movement in sprints makes running more efficient through the ABC Running exercise in athletic learning (Agari, Simanjuntak, & Haetami, 2019). In the research that was presented, it was found that there was an increase in the achievement of the speed of short distance running which was very closely related to the basic motion training of ABC Running

Another study described by Giartama (2019) revealed the influence of the ABC Running exercise on 100 meter running in school students (Giartama, 2018) so that it can be interpreted that acceleration, balance and coordination contribute to increasing speed.

ABC Running Movement is a movement that should be generally carried out with the correct technique by all sports in the formation of athletes aged 6-12 years (Fundamental Movement Skill). Because, according to LTAD (Long Term Athlete Development) explains that the development of skills for children or athletes aged 6-12 years should build pleasure and concentrate on developing ABC's (agility, balance, coordination and speed) and rhythm (Balyi, Way, & Higgs, 2013). The fact that we know about sports achievements is that sports do not do that perfectly. The trainer is more focused on developing sports branch skills without paying attention to the main fundamentals that must be built before heading to the main training.

Basically training for athletes aged 6-12 years or children focus more on train to fun (practice for fun) but also build physical abilities implicitly. In the book Long Term Athlete Development (LTAD) that the LTAD model is a seven-stage framework for the participation, training, competition, and recovery pathways in sport and physical activity, from infancy through all phases of adulthood. Seven stages are as follows: (1) Active Start, (2) fundamentals, (3) Learn to Train, (4) Train to Train, (5) Train to Compete, (6) Train to Win, (7) Active for Life (Balyi et al., 2013).

Children aged 6-12 years in the training program are more directed at Fundamentals and Learn to Train Stage, so that training can have the characteristics of training speed, skill, and flexibility. When athletes have good and correct fundamental skills, athletes will be ready to go directly to the train to compete and train to win period, so that an ecosystem of continuous achievement is created.

So that in the child's stage the development of fundamentals should be directed at funbased or game-based activities. A psychosocial perspective, it is suggested that the main emphasis of each program at this stage of development should be to promote social interaction

and fun to help children enjoy learning new skills and encourage the process of interaction with their peers. Therefore, in order to do this, researchers developed several ABC Running training models based on games to encourage children to practice basic movements more motivated and fun, so the exercise efforts carried out will be able to produce a maximum increase in running ability.

## II. Research Methods

The study uses qualitative and quantitative approaches. The development research is carried out the result of the game-based ABC running exercise model for children of 6-12 years old. Research produces results of training products with specifications and tests their effectiveness.

This development study adopted the development steps of Borg and Gall which have ten steps in the stages depicted in Figure 1.



**Figure 1.** The Steps of Research and Development from Borg and Gall.

Research and development in this exercise uses the Research & Development (R & D) model of Borg and Gall which consists of ten steps. (1) Research and information collecting, (2) Planning, (3) Develop preliminary form of product, (4) Preliminary field testing, (5) Main product revision, (6) Main field testing, (7) Operational product revision, (8) Operational field testing, (9) Final product revision, dan (10) Dissemination and implementation (D.Gall, P.Gall, & R.Borg, 2003).

The data analysis is done by qualitative and quantitative. After going through a small group trial, a large group trial was then continued with a effectiveness test by conducting Pre-Test and Post-Test on subjects who were treated (free group) and not treated (control group) as many as 40 athletes.

## III. Discussion

The results of the development of the ABC Running exercise model based on games for children aged 6-12 years have the aim of producing an effective and interesting speed training model, presented using data from the needs analysis through interviews by trainers. Expert data (validation expert) data obtained through two lecturers of the Faculty of Animal Sciences at the State University of Yogyakarta and lecturers at the Jakarta State University Faculty of

Sports Sciences, as well as data from the training expert validation results obtained from questionnaires from 1 national athletic trainer number sprinter.

Group trial data from two athletic clubs in Yogyakarta were collected using the interview method with trainers and advice from experts, for (1) small group trials of 20 people, (2) large group trials of 40 people, and (3) tests effectiveness of 40 people.

#### Results of Need Analysis

The needs analysis through interviewing 2 athletic trainers at each of the different clubs obtained the following results: (1) ABC Running exercises are not much in demand by athletes, especially children, (2) Variations in training models that cause children's enthusiasm in doing , (3) The lack of reference to the ABC Running exercise model that is easy to do, (4) The trainer agrees with the development of ABC running based game training models, (5) The athlete's understanding of the importance of ABC Running basic motion exercises is still lacking and (6) The trainer needs additional references for basic motion exercises especially ABC Running.

**Table 1.** Data Results of Field Needs and Findings Analysis (n = 2)

No	Question Items	Answer
1.	How long have you been training/becoming an athletic athlete?	I am an athletic athlete for about 21 years, but be a trainer of athletic since 1996 - now
2.	What achievements have the athletes from the Athletics Sportif club achieved as long as you train?	Achievements that have been achieved include; - Winner I of the 1500m (pi) run in Popnas 1997 - Winner I of the 5000m (pa) run in Teen PON 2014 - Winner I of the 3000m (pi) run in Teen PON 2014 - Winner I of the Fast Path (pi) in Teen PON 2014
3.	Where do you have the skills or athletic skills like now?	From my experience as an athlete and supported by knowledge I gained through upgrading level I athletic trainers and physical trainers
4.	Are ABC Running basic motion exercises given at your club?	Yes given at the club
5.	How do you train ABC Running for children aged 6-12 years?	The training that I gave was drill or a repeated movement
6.	How is the enthusiasm of the athletes when they follow the ABC Running exercise?	Children are less motivated and lack enthusiasm in doing exercises
7.		By applying the ABC Running exercises 10-30 meters repeated until several reps and sets

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8.	What ABC Running exercises do you often give to children?	Once and as a result the child feels more happy, but because of the limitations of reference to the exercise model so that the new exercise is applied twice
9.	Have you ever used the ABC Running based game training model?	Very necessary because in my opinion the existence of an attractive training model can make children motivated and happy in doing training activities. In addition, the trainer also needs additional references in providing basic athletic training material for children.
	Does it need to be given a more varied and interesting ABC Running training model to increase the speed of running?	

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No	Questions	Subject of the Interview
1.	How long have you been training / becoming an athletic athlete?	I became an athlete for 5 years, then became trainer from 1993 until now
2.	What achievements have the athletes from the Athletics Sportif team achieved as long as you train?	Achievements that have been achieved include; - Winner I of the 800m (pi) run in POPDA DIY 2017 - Winner I of the 1500m (pi) run in POPDA DIY 2017 - Winner 1 of the 800m (pi) run in National Championship PPLP 2018 - Winner 1 of the 1500m (pi) run in National PPLP 2018
3.	Where do you have the skills or athletic skills like now?	From my experience as an athlete and some of the athletic trainers I have attended
4.	Are ABC Running basic motion exercises given at your club?	Yes given at the club
5.	How do you train ABC Running for children aged 6-12 years?	The exercise that I give tends to focus on repetition of motion with the right technique
6.	How is the enthusiasm of the athletes when they follow the ABC Running exercise?	Children are less eager to make movements, especially if the movements are repeated with the same movements
7.		ABC Running exercises are repeated with a team relay game interlude to reduce children's genius

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8	What ABC Running exercises do you often give to children?	Never, but only limited relay games
9..	Have you ever used the ABC Running based game training model?	It is very necessary because the existence of an interesting and fun model of practice will foster a sense of enthusiasm in practicing children, besides that we as trainers also need references to additional forms of training especially for children who tend to prefer fun exercises
	Does it need to be given a more varied and interesting ABC Running training model to increase the speed of running?	

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After obtaining the results of the analysis of needs and findings in the field, the next step is the model planning stage. The model planning phase is carried out before the product trial is carried out. Planning and drafting a model is a stage that is carried out in order to provide clear guidance in conducting research and development. In the initial step, the researcher compiled a product of the ABC Running exercise model based on games for children aged 6-12 years, the researcher made a structured product design of 28 training model items.

#### Model Development Planning

After obtaining the results of the analysis of needs and findings in the field, the next step is the model planning stage. The model planning phase is carried out before the product trial is carried out. Planning and drafting a model is a stage that is carried out in order to provide clear guidance in conducting research and development. In the initial step, the researcher compiled a product of the ABC Running exercise model based on games for children aged 6-12 years, the researcher made a structured product design of 28 training model items.

#### Feasibility test

The next stage after collecting the needs analysis data and obtaining the required data that will be used as the basis for drafting the ABC Running game-based exercise model for children ages 6-12 years, the next step is to conduct expert testing with the aim of obtaining the feasibility or validity of the model based on assessment and advice from experts.

The researcher presented 3 experts in the assessment of the feasibility of the game-based ABC running exercise model for children ages 6-12 years, namely 1 person working as an athletic lecturer and worked as an International IAAF lecture (Dr. Ria Lumintuarso, M.Sc), 1 person working as a sports lecturer athletics as well as administrators in the field of achievement training at PB. PASI (Drs. Mustara, M.Pd) and 1 person as coach of Indonesia's national athletic sprinter number (Achmad Sumarsono Sakeh).

**Table 2.** ABC Running Exercise Model

No	Exercise Model	Validation			Percentage	
		Lecture 1	Lecture 2	National Athletics Coach	Feasible	Unfeasible
<b>A. Game Model of ABC Running Basics</b>						
1.	<i>Angkling Rhythmic</i>	Feasible	Feasible	Feasible	100%	0%
2.	<i>High Knees Rhythmic</i>	Feasible	Feasible	Feasible	100%	0%
3.	<i>Heel Kick-up Rhythmic</i>	Feasible	Feasible	Feasible	100%	0%
4.	<i>Angkling Ular Tangga</i>	Feasible	Feasible	Feasible	100%	0%
5.	<i>High Knees Ular Tangga</i>	Feasible	Feasible	Feasible	100%	0%
6.	<i>Heel Kick-up Ular tangga</i>	Feasible	Feasible	Feasible	100%	0%
<b>B. Game Model of ABC Running Intermediate</b>						
7.	<i>Apple, Banana, Orange</i>	Feasible	Feasible	Feasible	100%	0%
8.	<i>5 Angka</i>	Feasible	Feasible	Feasible	100%	0%
9.	<i>In Out</i>	Feasible	Feasible	Feasible	100%	0%
10.	<i>High Knees &amp; Stop</i>	Feasible	Feasible	Feasible	100%	0%
11.	<i>Jongkok Berdiri</i>	Unfeasible	Unfeasible	Unfeasible	0%	100%
12.	<i>River Bank</i>	Unfeasible	Unfeasible	Feasible	33,3%	66,7%
<b>C. Game Model of ABC Running Advanced</b>						
13.	<i>Angkling Jamuran</i>	Feasible	Feasible	Feasible	100%	0%
14.	<i>High Knees Jamuran</i>	Feasible	Feasible	Feasible	100%	0%
15.	<i>Heel Kick-up Jamuran</i>	Feasible	Feasible	Feasible	100%	0%
16.	<i>Ular Naga</i>	Feasible	Feasible	Feasible	100%	0%
17.	<i>Ular &amp; Tikus</i>	Feasible	Feasible	Feasible	100%	0%
18.	<i>Hitam Hijau</i>	Feasible	Feasible	Feasible	100%	0%
19.	<i>Ganjil Genap</i>	Feasible	Feasible	Feasible	100%	0%
<b>D. Game Model of ABC Running Combo</b>						
20.	<i>Balapan</i>	Feasible	Feasible	Feasible	100%	0%
21.	<i>Tiga Jadi</i>	Feasible	Feasible	Feasible	100%	0%
22.	<i>Estafet Angkling</i>	Feasible	Feasible	Feasible	100%	0%

23.	<i>Estafet Knees</i>	<i>High</i>	Feasible	Feasible	Feasible	100%	0%
24.	<i>Estafet Kick-up</i>	<i>Heel</i>	Feasible	Feasible	Feasible	100%	0%
25.	<i>Estafet Kombinasi</i>		Feasible	Feasible	Feasible	100%	0%
26.	<i>Bentengan ABC Run</i>		Unfeasible	Unfeasible	Unfeasible	0%	100%
27.	<i>Bangun Run</i>	<i>Tidur</i>	Feasible	Feasible	Unfeasible	66,7%	33,3%
28.	<i>Formula One</i>		Feasible	Feasible	Feasible	100%	0%
<b>Total</b>			Total number of training items			<b>28</b>	Item
			Eligible Category Items			<b>25</b>	Item
			Inappropriate Category Items			<b>3</b>	Item

Based on the table above, it can be seen that the average percentage of athletic expert validation and leadership as many as 3 people amounted to 89.3% so that overall the products developed in the category are very feasible. Furthermore, some inputs were given by athletic and athletic training experts.

The input given can be elaborated, first from Athletics expert (Dr. Ria Lumintuarso, M.Sc), (1) I recommend that each form of training be given a category (Basics, Intermediate, Advance or Hard) so that the implementation of the movement can be tiered starting from the easiest to the hardest (2) Pay attention to movement techniques when the child starts doing exercises (3) Give a unique name to each of the training models developed. (4) The level of difficulty adjust to the growth and development of children. (5) Adjust the exercise model to the principles of ABC practice (agility, balance & coordination) at the age of children. (6) Give an illustration of an easy-to-understand exercise model

Second input from Athletics expert (Drs. Mustara, M.Pd); (1) Arrange and sort the exercises from simple to complex movements. (2) Give pleasant sentences in order to foster enthusiasm for doing the exercises. (3) Adjust the amount of training volume with the parameter test distance to be used. (4) Make simple and easy tools to do during the exercise. (5) Playing area must be clear. (6) Put a mark on the game area

The third input from Athletics Training Expert (Ahmad Sumarsono Sakeh); (1) Directions for implementation must be made more clearly so that it is easier for children to understand. (2) The model image must be clear so that the athlete can understand it after the children. (3) Exercise must be truly safe for children. (4) The model developed makes children happy in doing so. (5) Motion training coaching points must contain elements of speed training

### Small Group Trial Results

The game-based ABC running exercise model for children aged 6-12 years has been evaluated by experts, then undergoes a revision of phase I with the results of 25 items that are feasible to be developed towards the next stage, namely group trials. After the product design in the next step revision the model will be tested in a small group trial with 20 research subjects. Based on the results of evaluations and small group trials conducted by researchers it can be



said that 24 model items are feasible to use, and 1 item is a fall model because it has similarities to items in the model exercise 7.

### Large Group Trial Results

The game-based ABC running exercise model for children aged 6-12 years has been improved based on the evaluation results at the small group trial stage, then continued with the large group trial phase. Based on the results of the small group trials 24 models were obtained that were feasible as well as some refinement of training items according to the advice and input of experts and coaches. At this stage researchers used the subject of research as many as 40 athletes' ages 6-12 years at the club in Yogyakarta. The results of a large group trial conducted on the game-based ABC running exercise model for children aged 6-12 years, based on the results of expert evaluations and input from the trainers, all models are feasible to use.

### Effectiveness Test Results

The game-based ABC running exercise model for children aged 6-12 years who have gone through the small group trial phase and revised the second phase of the product component based The game-based ABC running exercise model for children aged 6-12 years, followed by trials of large groups and stage revisions third. Then, to find out the effectiveness of the products made an implementation process was carried out using a pre-experimental research design in the form of "two group pretest-posttest design".

The research subjects used by researchers to test the effectiveness of the game-based ABC running exercise model for children aged 6-12 years as many as 40 athletes aged children at the Yogyakarta Athletics club. Twenty subjects were given treatment and 20 subjects as the control group. Data from the test results of 20 athletes on the effectiveness of the model are shown in the following table:

**Table 3.** Running Speed Test Results of 30 meters before Treatment (Pretest) and Results after Treatment (Posttest) in the Experimental Group

Name	<i>Pre-Test</i>	<i>Post-Test</i>
Subject 1	5.05	4.70
Subject 2	5.25	4.57
Subject 3	5.83	5.20
Subject 4	5.55	4.83
Subject 5	5.02	4.50
Subject 6	5.84	5.08
Subject 7	5.55	4.83
Subject 8	6.02	5.24
Subject 9	5.90	5.13
Subject 10	5.57	4.85
Subject 11	5.38	4.68
Subject 12	6.11	5.32
Subject 13	7.20	6.26
Subject 14	6.26	5.45
Subject 15	6.43	5.01
Subject 16	7.03	6.12
Subject 17	5.60	4.87

Subject 18	5.78	5.03
Subject 19	5.94	5.00
Subject 20	6.28	5.46
<b>Average</b>	<b>5.88</b>	<b>5.11</b>

The table above shows the results of the experimental group pre-test and post-test of the age-old athlete when performing the 30-meter speed test. The pre-test was carried out before the implementation of 24 items of the game-based ABC running exercise model.

The test was conducted to determine the children's initial abilities and final abilities after being given treatment in 16 meetings. The average test results of 20 athletes aged 6-12 years before being treated were 5.88. After being given a 24-item of the game-based ABC running exercise model, the post-test data revealed that the child's running speed increased marked by an increase in the average record yield of 5.11.

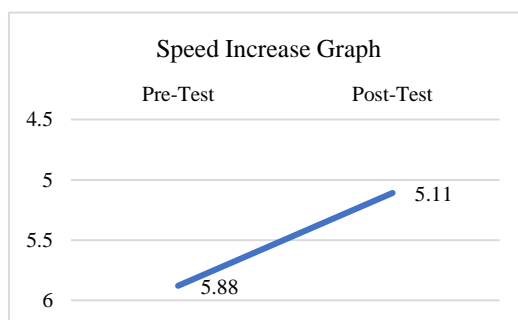
Based on the description above there are differences in the results of the 30 meter running speed between the pre-test and post-test that the training model developed is effective and can increase the speed of short-distance running.

**Table 4.** Results of Paired Sample Statistics (Pre-Test) and (Post-Test) in the Experimental Group

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Data_Prestest-Data_Posttest	.76400	.07486	.01674	.72896	.79904	45.641	19	.000

In the mean difference test with SPSS, the mean = 0.764 shows the difference from the pre-test and post-test results, the results of t-count = 45.651, df = 19 and p-value = 0.00 < 0.05, which means there are significant differences between before and after the treatment of the game-based ABC running exercise model for children ages 6-12 years.

Based on these results it can be concluded the game-based ABC running exercise model for children ages 6-12 years is effective and can increase the running speed of 30 meters. The developed training model has significant effectiveness.



**Figure 2.** Graph of Experimental Product Effectiveness Test

The comparison chart above produces data on average records before and after being given treatment the game-based ABC running exercise model for children ages 6-12 years with the results of an average pre-test of 5.88 seconds and post-test 5.11 seconds.

Furthermore the results data obtained from the test of 20 athletes in the control group are shown in the following table:

**Table 5.** The Running Speed Test Results of 30 meters before Treatment (Pretest) and Results after Treatment (Posttest) in the Control Group

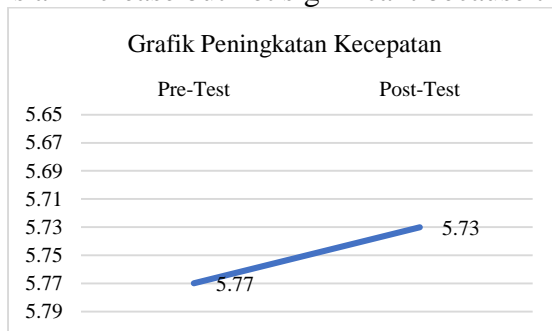
Name	Pre-Test	Post-Tes
Subject 1	5,25	5,20
Subject 2	5,10	5,05
Subject 3	5,71	5,65
Subject 4	5,45	5,40
Subject 5	5,56	5,50
Subject 6	6,00	5,94
Subject 7	5,40	5,35
Subject 8	5,79	6,00
Subject 9	6,20	6,14
Subject 10	5,22	5,17
Subject 11	6,30	6,30
Subject 12	5,60	5,54
Subject 13	6,25	6,19
Subject 14	6,24	6,08
Subject 15	5,77	5,17
Subject 16	5,80	5,74
Subject 17	5,55	5,53
Subject 18	6,33	6,27
Subject 19	5,76	5,70
Subject 20	6,20	6,14
<b>Average</b>	<b>5,77</b>	<b>5,73</b>

**Table 6.** Results of Paired Sample Statistics (Pre-Test) and (Post-Test) in the Control Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Data_Prestest- Data_Posttest	.03900	.06060	.01355	.01094	.06736	2.678	19	.010

Based on the table above and the results of SPSS addressing the results of the pre-test of athletes aged 6-12 years when carrying out the actual 30 meter running speed test. The average test result of 20 athletes at the pre-test was 5.77 and the average result at the post-test was 5.73. While the results of the correlation coefficient are  $0.00 < 0.05$ , there is a significant relationship. Data on normality in the pre-test 0.317 and in the post-test group 0.368, where both data are greater than 0.05. This means that both data come from populations that are

normally distributed. The average pre-test value is 5.76 and the value after the post-test is 5.73 which means that there is an increase but not significant because there is no treatment given.



**Figure 3.** Control Product Effectiveness Test Graph

The comparison chart above produces the average record data before and after being given treatment for the old training model with the results of the average pre-test of 5.77 seconds and the post-test of 5.73 seconds.

The above results show that the treatment given to the experimental group that is the game-based ABC running exercise model has a higher effectiveness and can increase the running speed of 30 meters for children aged 6-12 years. Whereas in the control group that was only given treatment the old training model had low effectiveness compared to the experimental group.

#### IV. Conclusion

The researchers concluded several things as the results of the data obtained, briefly showing that the game-based ABC running exercise model for children ages 6-12 years in the form of products which included objectives, implementation, facilities and training points accompanied by training programs as the theories exist. The products are made up of 24 training model items that have been validated by experts. In addition, the game-based ABC running exercise model for children ages 6-12 years is feasible and effective to use in increasing the speed of short-distance running exercises. Increasing the running speed of 30 meters shows the significance of  $t$ -count = 45.64,  $db$  = 19 and  $p$ -value =  $0.00 < 0.05$ , for the average  $N$ -gain of 56.30, which means that the category of interpretation is "quite effective". This means that there are significant differences in the 30 meter run speed of athletes before and after being given a training model.

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