



DIFFERENCES OF THE EFFECT OF COOPERATIVE AND EXPOSITORY LEARNING MODELS ON THE MASTERING OF BASIC TECHNIQUES OF RUNNING ELEMENTARY SCHOOL STUDENTS

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Article history:	Abstract:
Received: 3 rd July 2021 Accepted: 3 rd August 2021 Published: 14 th September 2021	This study aims to determine whether: (1) the cooperative learning model significantly affects the mastery of elementary school students' basic running technique skills, (2) the expository learning model significantly influences the elementary school students' mastery of basic running technique skills, (3) the learning model cooperative learning has a significantly greater effect than the expository learning model on the mastery of elementary school students' basic running technique skills. This study used a randomized control-group pretest-posttest design. The sample units from three schools (SDN 28, SDN 30, and SDN 63) were fifth grade students with a total sample of 90 students taken randomly from each sample unit of 30 students. This research was conducted for two months or 12 meetings. The results of data analysis show that: (1) learning physical education using cooperative learning models has a significant effect on the mastery of basic running technique skills for elementary school students, with the results of calculating the t-test to increase the pretest score against the posttest in mastering basic running technique skills, namely the value of $t = 32.57$; (2) learning physical education using expository learning model has a significant effect on the mastery of basic running technique skills of elementary school students, with the results of calculating the t-test to increase the pretest score against the posttest in mastering basic running technical skills, namely the value of $t = 34,99$; (3) the application of the cooperative learning model has a better effect on the mastery of basic running technique skills compared to the application of the expository learning model. This is proven by the results of the t-test calculation, namely the value of $t = 2.01$.

Keywords: Model Cooperative, Expository Learning Model

INTRODUCTION

Intensification of the implementation of education as a process in human growth and development lasts a lifetime, and physical education is one of the important tools to stimulate this growth and development, because physical education is closely related to human movement, namely by moving humans are able to survive and through motion that humans achieve several goals such as physical growth, mental and social development. If the physical education learning program held in elementary schools can be well organized, it will make a very significant contribution to the growth and development of students.

Physical education and sports are part of the National curriculum for Elementary and Secondary Education institutions, whose influence is unquestionable for the growth and development of students, if the process is carried out properly. This is closely related to the concept of physical education and sports in schools which are always aligned to achieve the goals of comprehensive physical education which includes physical, intellectual, emotional, social, and moral aspects. With regard to the physical aspect, the main purpose of physical education is to enrich the treasury of children's basic movements, while for the social aspect the goal is the formation of children's social attitudes, namely the recognition and acceptance of shared rules and norms, learning responsibility, sacrifice, and learning to work together. .

The above is intended to prepare students both physically and spiritually to improve their abilities and basic movement skills and help develop their personality. To achieve this improvement and development, elementary school physical education teachers must be able to use an appropriate learning approach, which is based on the stages of development and characteristics of children.

Based on a learning paradigm based on a variety of learning models and an evaluation system designed and implemented by taking into account various educational rules and theories regarding the teaching and learning process, it is hoped that teachers as the main actors in the learning process in the educational environment, especially in elementary schools, will be able to direct and guide and can understand the characteristics of their students. Given the importance of the teacher's position in the learning process, naturally every physical education teacher must know, understand, and live up to the ins and outs of learning so that the learning process can take place effectively and achieve the desired results based on the overall physical education goals.

The lack of development of learning models resulted in the movement tasks given by the teacher to students not having a positive impact on the children's basic movement vocabulary. As that presented by Lutan (2007 : 21) that: "The weakness in physical education in elementary school is not merely elections and the development of materials that require adjustments by the state of elementary school students, but its weakness more on the development of learning models". Likewise, the limitations of sports equipment and facilities, as well as the lack of creativity of teachers in modifying learning models have an impact on the quantity and quality of movement tasks given by teachers to students, thus hampering the development of children's basic movement vocabulary and causing difficulties in fostering talent and early achievement from an early age. .

In the context of education in elementary schools which is seen as laying the groundwork, elementary school physical education teachers as the main source in the physical education learning process certainly have the greatest responsibility in making their learning effective. Therefore, the essence of good physical education learning is that students must be able to enjoy the experience and choose to continue their involvement in these activities outside of school hours Teacher elementary school physical education must be careful and pay attention to its application in the field, which is about the principles of physical education learning the nuances of all SD's (Kahri, 2009: 18).

In designing physical education learning activities, teachers should pay attention to the initial conditions of students in terms of perception and behavior, because at the elementary school level, the aspect of biomotor development is the enrichment of motion or the development of physical abilities as a whole (multilateral) which is the basis for fostering specialization in sports. at the next stage. However, in the practice of teaching physical education, the teaching approach tends to reflect the characteristics of the training approach (sporting based approach) which is rigid and poor in substance because it is only achieved by aspects of physical skills while positive accompaniment impacts such as inculcation and appreciation of values are neglected. Therefore, to underlie physical education programs as proposed by Graham (1993) in Suherman (2007:9) " Developmentally Appropriate Practice (DAP) " , namely exercise programs or movement activities that will be carried out by students must be in accordance with their abilities. As a result, the teaching of physical education in elementary schools does not have an elementary school atmosphere.

THEORY STUDY

The Nature of Physical Education

Physical education is one of the most important tools to stimulate growth and development, especially the growth and development of human movement, namely the motion that humans need in their life activities, both to learn to know the natural surroundings in an effort to gain various experiences in the form of knowledge and skills, values and attitudes, as well as to learn to know themselves as individual beings and social beings in an effort to adjust and cope with the changes that occur in their environment. Education physical is an integral part of the entire educational process aimed at physical, mental, emotional, and social skills through physical activities that have been selected to achieve a result , (Johana and Supandi , 2004: 30) . P Education physical is a process through physical activity, which is designed and arranged systematically to stimulate growth and development, improve the ability and physical skills, intelligence and formation of character and values and a positive attitude to every citizen in order to achieve the objectives, (Syarifuddin, 2002: 4). Therefore, the values of physical education on child development as a whole are contained in three behavioral domains , namely the cognitive domain , the psychomotor domain , and the affective domain .

It can be assumed that the essence of physical education is centered on human movement, because in physical education there are three very basic factors in human movement. First, the physical performance factor, this factor is very influential in physical activity, which underlies all movements such as agility, speed, strength, endurance, balance, flexibility, and others. The second factor is universal activity, namely fundamental skills such as: running, throwing, jumping, climbing, and hanging. While the third factor is a high-level special movement that is mastered with special training and experience which includes activities in physical education and sports.

The physical activities and sports referred to above are described as student activities to improve motor skills and functional values which include cognitive, affective, and social aspects. These activities should be selected and adapted to the child's developmental level. Through physical education activities, it is expected that students will grow and develop in a healthy, physically fit, and harmonious personality. The core values of the physical education program will be meaningful in the context of elementary school education, if it can provide learning experiences to students and will also realize the development of physical education goals, namely not only development in the physical dimension,

namely students' physical fitness but also in developing changes in students' social attitudes. . Through regular, planned, directed, and guided physical education programs, it is hoped that a set of goals can be achieved which includes the formation and development of physical and spiritual growth and development. Because p Education physical is a process that is done consciously and systematically through a variety of physical activity to obtain physical growth, health physical, abilities and skills, intelligence and character development as well as a harmonious personality in order to establish the Indonesian people fully qualified based on Pancasila (Cholik and Lutan, 2007 :10).

This is certainly an added value attached to physical education, in addition to its ability to develop psychomotor and cognitive aspects of children. This belief in surplus value is the reason why physical education has always been a mandatory field of study for school children from Elementary School to Middle School . With physical education we seek to prepare them in order to be able to live in a society and skilled and by itself does not burden others. Therefore, physical education is a part of the overall education that promotes physical activity, growth and mental development, social, and emotional , (Lutan, 2007: 7) .

Cooperative Learning Model

Cooperative learning model is a very appropriate learning method to increase student activity during the learning process. Cooperative learning model can be interpreted as a joint activity of a number of students in a particular group to achieve a certain goal together. In cooperative learning, students are expected to discuss subject matter with friends in their respective groups with the aim of providing the knowledge, skills, concepts, and understandings needed by students and each student feels happy to contribute his knowledge to members in his group, (Ibrahim, et al. , 2010:8). In cooperative learning students learn together, help each other, and discuss together in completing a learning activity. In cooperative classes, students will strive to be able to attend class regularly, strive to help and encourage the spirit of their group of friends to succeed together. Group makes students eager to learn, active for each present themselves or play a role among their peers. Therefore, learning with a cooperative approach can spur students' enthusiasm to help each other solve the problems they face (Mardjani, 2010:4)

In the cooperative learning model system students learn together in small groups consisting of 4-5 students, a mixture of high, medium, low ability students, gender, and ethnicity or race and help each other. They are taught special skills so that they can work well in their groups, such as being active listeners, giving good explanations to their groupmates, discussing, and so on. The cooperative learning model is not only superior in helping students understand difficult concepts, but also greatly helps students grow cooperative skills, critical thinking, willingness to help group mates and so on. In the cooperative learning model, students will find it easier to find and understand difficult concepts if they can discuss these problems with their friends (Marsudi, 20 1 1:19).

Cooperative Learning Process

There are four types of cooperative learning models according to Arends, (1997:119), namely: (a) Student Teams Achievement Divisions (STAD), (b) Jigsaw, (c) Group Investigation, (d) The Structural Approach . Of the four types of cooperative learning, the tendency to be used as an alternative in learning physical education is the Jigsaw type. The reason is, in Jigsaw cooperative learning students learn by dividing material according to sub-subjects in groups, discussing in order to find and understand concepts, such as the concept of movement skills in physical education learning , students find and understand difficult concepts more easily. if they cooperate with each other or discuss the same problem with their friends , (Nur and Wikandari, 2009:6).

Especially for elementary school, the effective technique to be achieved is firstly participation according to the ability of the student . One of the effective techniques for teaching physical education to elementary school students is by providing opportunities for them to adjust the task of movement to their abilities (Lutan, 2007: 6.12).

Expository Learning Model

In the expository learning model, the teacher explains a physical education material so that students can arrange or assemble a sequence of movements and relate them to the topics of movement that have been studied. Although in this model the teacher explains more but if the teacher does not pay attention to the condition of the students who are studying, the students will quickly get bored and passive in learning. The learning model begins by providing information or lectures in explaining a concept or topic, demonstrating their skills regarding the pattern of rules about the concept or topic. The teacher explained back if there are still students who do not understand and provide examples of the movement or use of the concept while providing similar tasks to the students to do or do at each, (Subagyo, 200 0 : 27)

If this learning model is used for heterogeneous classes, it will make the learning process ineffective. Students who have difficulty in learning physical education, have a negative attitude to progress and convincingly they cannot understand or do anything from the nature of physical education itself. As a result they daydream a lot, refuse to work or do movement tasks, and disturb other students so that their learning achievement will be low. In the expository learning model, the teacher is the supervisor of the learning program, and chooses a program that has been determined to be explained and tries so that students can master it , and the teacher always guides his students to obtain the correct information (Amrina, 2006 :26).

The expository learning model is one approach in learning physical education that emphasizes physical skills, children's movement vocabulary and the formation of children's personalities. Therefore, the expository learning model in physical education does not refer to one particular learning method, but uses several learning methods that are adapted appropriately by physical education teachers during the teaching and learning process, with material presented systematically according to the curriculum, and according to stages. stages of cognitive, affective, and psychomotor development of children. Thus, the expository learning model can be used in physical education learning in elementary schools, because this learning model uses a bilateral approach or considers the stage of development and characteristics of children, as well as enrichment of children's movement vocabulary. Elementary school age children, the involvement of teachers is still very necessary for the learning process to be effective, because it is a viable approach used in learning is expository approach. Elementary-aged children still need guidance from teachers to find out how to learn effectively. In expository learning, the teacher acts as the executor of the learning process by expecting the students to be mentally prepared to follow it. (Darmodjo and Kaligis, 200 0 : 35).

Basic Running Technique Skills

Athletics is a physical activity or physical exercise that consists of natural movements such as walking, running, throwing, and jumping. In athletics there are also several educational values that play an important role in the development and improvement of achievement for other sports. In an effort to help students prepare for physical growth and movement abilities which will later be useful in overcoming the challenges of motion in sports and daily life, it is necessary to explore the potential for movement of students through athletics (Cholik and Lutan, 2007 : 29).

To create this atmosphere, physical education teachers who are competent in these fields play an important role. Therefore, physical education teachers should not only develop movement skills according to activities in running numbers, but also instill the values needed in human life such as: honesty, discipline, chivalry spirit, social behavior, mutual respect and self-confidence. So that the athletic sport (running number) in this case is a vehicle for education that is not only for skill development, but also for developing humanities values (Cholik and Lutan, 2007 :30).

In order for running number learning to be implemented based on the principles of physical education learning with an elementary school nuance, it must refer to the principle of Developmentally Appropriate Physical Education Programs or in other terms called Developmentally Appropriate Practice. The program is about physical education programs, namely the movement tasks that will be given to students must be adjusted to the level of development of age and experience specifically , (Barrett in Kahri, 2009:18)

Likewise, the principle that underlies the physical education program for running numbers is DAP (Developmentally Appropriate Practice) which means that the training program or basic running motion activity that will be carried out by students must be in accordance with their abilities; and IAP (Instructionally Appropriate Practice) means that the delivery of training instructions, learning activities or basic running motion activities is carried out appropriately in accordance with optimal learning success , (Graham in Suherman , 2007: 9) .

The physical education teacher will only succeed in his duties if he understands the characteristics and characteristics of the growth and development of his students, and every improvement that will be made must be adjusted to the abilities of the students . The learning material presented must be easily accepted or carried out by students, such as basic running technique skills exercises in a simple form that must refer to the principles of developing movement skills and the characteristics of the growth and development of students (Basuki, 1999:185). In connection with that, the teacher of physical education should know and understand the characteristics of skills that will be taught and how to teach it. Because the purpose of developing movement skills is to produce a consistent and efficient performance in a certain environment.

Basics of Running Techniques

Running is the movement of two consecutive leg steps which is a cycle. In the running cycle there are two main phases, namely resisting and hovering. In running, one leg performs a certain function and the other leg performs another function as well. For example, at the time of the resisting phase with the forefoot, at the same time the hovering phase with the hind foot ends. At the end of the resisting phase with the back knee the leg performing the forward phase reaches its maximum height. After rejecting with the back foot, the phase of hovering with the back foot by the same foot begins. At the same time, the front foot has not touched the ground, the runner is in the floating phase, in other words, the runner is in the second main phase (Seba, 20 1 0 ; Yudy, 20 11).

The forward movement in running comes mainly from the resist phase with the hind legs being alternated. Due to the strong repulsion surface, at the same time a repulsive force is generated in the opposite direction as a reaction. This is according to (Seba,2010 : 10) that the optimal reaction in the direction of maximum power is not only a characteristic of a good runner, but is also the difference between champions and beginners. Because the speed of running depends on the direction and magnitude of the strength of the foot support, especially the back leg which is done well when the joints of the feet, knees and hips are optimally straightened. As described by Judy (20 11 , 17) that: The speed running depending on the frequency step, strength, and range of motion run and reduce lost time from the period of relaxation, this involves a coordination technique and strength that should be maintained until the past finish line.

METHOD OF RESEARCH

The method used in this research is the experimental method. By involving Elementary School Students in Kota Selatan District, Gorontalo City, the school sample was carried out *purposively*, namely schools that were considered representative to achieve the research objectives. The schools selected were SDN 28, SDN 30, and SDN 63. Students who are the sample unit from the three schools are class V, each school consists of 30 male and female students taken at random, the total sample size is 90 students (50 boys and 40 girls).

The data collector used by the author in this study is a test of mastery of basic running technique skills using a running skill test consisting of start movements, running movements, and finish entry movements. And to obtain pretest and posttest data, mastery of basic running technique skills was obtained by direct observation.

The treatment was given to a sample of 3 classes, first a pretest was carried out on the mastery of basic running technique skills consisting of a start attitude on a ready signal, a ready signal, a yes signal, an attitude when running, and an attitude across the finish line. Furthermore, the implementation of learning in the three schools each uses a different learning model. The learning model used by each school was determined randomly, with the following results: SDN 28 uses a cooperative learning model, SDN 63 uses an expository learning model, while SDN 30 as a control class uses a conventional learning model, which is a model that is always used by teachers every day. teaching times.

Before students take part in the learning program, at the three schools, each represented by class V students, a pretest is first held for mastery of basic running technique skills.

The purpose of this test is to measure the average initial score of mastery of basic running technique skills. This will be a comparison between the results of the pretest and posttest as a result of the treatment of cooperative and expository learning models that have been implemented. The implementation of this pretest involved 90 students consisting of 30 students from each school as a sample.

After each school, namely SDN 28, SDN 30, and SDN 63 Kota Selatan participated in the learning or training program 12 times, then a posttest was given to each sample, namely a test of mastery of basic running technique skills. The posttest was held with the aim of measuring the average score of mastery of basic running technique skills, because the average score was compared with the average pretest score as the effect of the learning given (treatment) in 12 meetings.

RESULTS AND DISCUSSION

Based on the research data that has been obtained in the field, this chapter provides an overview and analysis of the findings relating to the effect of cooperative and expository learning models on the mastery of basic running technique skills. The research variables were the Cooperative Learning Model as the first independent variable (X-1), the Expository Learning Model as the second independent variable (X-2), and the Mastery of Basic Running Techniques as the dependent variable. To see the effect and differences in the effect of each learning model on the mastery of basic running technique skills, the conventional learning model was used as a control for the two models. The influence of these two learning models on the mastery of basic running technique skills can be seen in the difference in the scores shown using the Cooperative Learning Model, Expository Learning Model, and Conventional Learning Model. Therefore, those assessed in mastering basic running technique skills include aspects: (1) start movement, (2) running movement, and (3) movement across the finish line. The data includes pretest and posttest scores for each learning model. In this study, to test the differences between the pretest and posttest of each learning model, the dependent t-test was used, while to test the difference in influence between one model and another model, the dependent t-test was used.

Data processing

The pretest and posttest scores of the research results are shown in table 3 below.

Table 1
Description of the Pretest and Posttest Scores of Research Results

Score	Learning model	Test	N	Minimum	Maximum	Amount	Average	Standard Deviation	variance
Basic Running Technique Skills	cooperative	Posttest	30	4.39	5.00	143.70	4.7900	0.1538	0.0237
		Pretest	30	2.50	3.50	86.75	2.8917	0.3116	0.0971
	Expository	Posttest	30	4.22	5.00	140.64	4.6880	0.2305	0.0531
		Pretest	30	2.55	3.45	88.31	2.9437	0,2010	0.0404
	Conventional	Posttest	30	4.17	5.00	136.76	4.5587	0.2227	0.0496
		Pretest	30	2.49	3.50	90.74	3.0247	0.3791	0.140

Furthermore, by observing the values in Table 3 above, it can be seen that there is an increase in the pretest score when compared to the posttest score, both the score interval and the average. This shows that there is an increase in the score of mastery of basic running technique skills by the use of cooperative learning models. For the average value there is an increase in the score of 1.8983. If the increase is expressed in percent, then there is an increase of 65.6% (1.8983/2.8917 X 100%), and the increase in this score is quite high.

For the mastery score of basic running technique skills using the expository learning model, for the pretest score, the score interval is 2.55 to 3.45; arithmetic mean 2.9437; standard deviation 0,2010; and a variance of 0.0404. The average value when compared with the ideal score of 5.0 obtained about 58.86%. This average result is still in the medium category. As for the posttest score, the score interval is from 4.22 to a score of 5.00; arithmetic mean of 4,688; standard deviation 0.2305; and a variance of 0.0531. The average value when compared with the ideal score of

5.0 obtained about 93.76%. This average result belongs to the very high category. By observing the difference between the pretest and posttest scores obtained by students, it can be seen that the average increase from pretest to posttest is 1.7443. If written in percent, the increase in the score is 59.29%. The increase in this score is quite high.

In using the conventional learning model, it was analyzed that between the pretest and posttest there was an increase in the score. In the pretest interval the score between 2.49 to 3.50 increased to an interval between a score of 4.17 to a score of 5.00 in the posttest. Likewise with the average score, in the pretest the average score was 3.0247, increasing to 4.5587 for the posttest average score. The average value of the posttest when compared with the ideal score of 5.00 was obtained around 91.18%. By observing the comparison of the average scores, it can be seen that there is an increase in the average score of 1.534 which if expressed in percent, there is an increase of 50.72%. The results of this average increase are in the high category.

Based on the results of the analysis of the data description and the difference in the average posttest and pretest scores, in general the application of cooperative, expository, and conventional learning models can increase the mastery score of basic running technique skills, which is concluded that the application of the three learning models can improve students' mastery of skills in demonstrating good mastery of basic running technique skills. In other words, the application of the three learning models can have a positive influence on the mastery of students' basic running technique skills. This conclusion is supported by the acquisition of the t-score on the average difference test of pretest and posttest scores for the three learning models. Of the three averages, the average application of cooperative learning models is higher, so it can be concluded that the application of cooperative learning models has a better effect on mastery of basic running technique skills compared to the application of expository and conventional learning models.

Hypothesis test

The hypothesis being tested is: "There is a difference in the effect of cooperative and expository learning models on the mastery of elementary school students' basic running technique skills". Testing this hypothesis is done by comparing the increase in the score of mastery of basic running technique skills who learn through cooperative learning models with students who learn through conventional learning models, as well as scores of mastery of basic running technique skills who learn through expository learning models with students who learn through conventional learning models. . This comparison of increasing scores illustrates the difference in the effect of the studied learning model on the mastery of basic running technique skills in elementary school students.

Test of Differences in the Effect of Learning Models on Mastery Scores of Basic Running Techniques

In this test, there are three sub-hypotheses to be tested, namely the difference in the score of mastery of basic running technique skills between the use of learning models: (1) Cooperative with Conventional, (2) Expository with Conventional, and (3) Cooperative with Expository.

Examine differences in the increase in basic engineering skills mastery score a run used formula t test (independent). The level of significance used is = 0.05. Because the samples of each learning model are the same, namely: 30 respondents, the degrees of freedom $dk = n_1 + n_2 - 2 = 58$. By using the two-party test, the t value is obtained for = 0.05 and $dk = 58$ in the distribution list t is t 2.00. Thus the test criteria are: Accept H_0 if $-2.00 < t < 2.00$. otherwise $n H_0$ is rejected.

Next Table. The following 4 can be used to help calculate the t-value of the difference in the increase in the mastery score of basic running technique skills. The table contains the mean and standard deviation of the difference in pretest and posttest scores.

Table 2
Average and Standard Deviation Difference between Pretest and Posttest Scores Mastery of Basic Running Techniques

Learning model	Score	Average	Average Difference	Standard Deviation Score difference
cooperative	Pretest	2.8917	1.8983	0.3193
	Posttest	4.7900		
Expository	Pretest	2.9437	1.7443	0.2730
	Posttest	4.6880		
Conventional	Pretest	3.0247	1.5340	0.4314
	Posttest	4.5587		

Difference Test for Cooperative and Conventional Learning Models

The hypotheses to be tested are:

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 \neq \mu_2$$

The average increase in the score of mastery of basic running technique skills for the cooperative learning model is μ_1 , and μ_2 is the average increase in the score of mastery of basic running technique skills for the conventional learning model. By using Table 4, the mean, and standard deviation of the difference in the score of the cooperative learning model sample, are 1.8983; and $s_1 = 0.3193$. While the average and standard deviation of the difference in the scores of the conventional learning model samples, respectively, are 1.5340; and $s_2 = 0.4314$. From the results of the standard deviation above, the variance and standard deviation of the two samples were calculated, namely $s^2 = 0.379$ and the value of $t = 3.72$.

From the calculation results, it turns out that the value of $t = 3.72$. If combined with the above criteria then t values obtained were outside the rejection of H_0 . Thus accept H_1 , which is a significant difference between the increase in the basic engineering skills mastery score a run that using cooperative learning model with an increase in basic engineering skills mastery score running using conventional learning models. Thus, it can be concluded that the application of the cooperative learning model has a better effect on the mastery of basic running technique skills compared to the application of the conventional learning model.

Difference Test for Expository and Conventional Learning Models

The hypotheses to be tested are:

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 \neq \mu_2$$

In this case, μ_1 is the average increase in the score of mastery of basic running technique skills for the expository learning model and μ_2 is the average increase in the score of mastery of basic running technique skills for the conventional learning model. By using Table 4, it is obtained that the mean and standard deviation of the difference in the scores of the expository learning model samples are 1.7443; and $s_1 = 0.2730$. While the average and standard deviation of the difference in the scores of the conventional learning model samples, respectively, are 1.5340; and $s_2 = 0.4314$. From the results of the standard deviation of each sample, the variance and standard deviation of the two samples were calculated, namely $s^2 = 0.361$ and $t = 2.26$.

From the calculation results, it turns out that the value of $t = 2.26$. If combined with the above criteria then t values obtained were outside the rejection of H_0 . Thus accept H_1 , which is a significant difference between the increase in the basic engineering skills mastery score a run that uses the expository teaching model with an increase in basic engineering skills mastery score running using conventional learning models. Thus, it can be concluded that the application of the expository learning model has a better effect on the mastery of basic running skills compared to the application of the conventional learning model.

Difference Test for Cooperative and Expository Learning Model

The hypotheses to be tested are:

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 \neq \mu_2$$

The average increase in the score of mastery of basic running technique skills for the cooperative learning model is μ_1 , and μ_2 is the average increase in the score of mastery of basic running technique skills for the expository learning model. By using Table 4, it is obtained that the mean and standard deviation of the difference in the scores of the cooperative learning model samples are 1.8983; and $s_1 = 0.3193$. While the average and standard deviation of the difference in the scores of the expository learning model samples, respectively, are 1.7443; and $s_2 = 0.2730$. From the results of the standard deviation of each sample, the variance and standard deviation of the two samples were calculated as $s^2 = 0.297$ and the value of $t = 2.01$.

From the calculation results, it turns out that the value of $t = 2.01$. If combined with the above criteria then t values obtained were outside the rejection of H_0 . Thus accept H_1 , which is a significant difference between the increase in the basic engineering skills mastery score a run that using cooperative learning model with an increase in basic engineering skills mastery score running using the expository learning model. Thus, it can be concluded that the application of the cooperative learning model has a better effect on the mastery of basic running technique skills compared to the application of the expository learning model.

CONCLUSION

Based on the results of the analysis of the proof of the hypothesis, the following conclusions can be drawn:

1. The application of the cooperative learning model has a better effect on the mastery of basic running technique skills compared to the application of the conventional learning model. This is proven by the results of the t-test calculation, namely the value of $t = 3.72$.
2. The application of the expository learning model has a better effect on the mastery of basic running skills compared to the application of the conventional learning model. This is proven by the results of the t-test calculation, namely the value of $t = 2.26$.
3. The application of the cooperative learning model has a better effect on the mastery of basic running technique skills compared to the application of the expository learning model. This is proven by the results of the t-test calculation, namely the value of $t = 2.01$.
4. The cooperative learning model gave significantly better results than the expository learning model, and the expository physical education learning model gave significantly better results than the conventional learning model on the mastery of basic running technique skills in elementary school students.

Based on our research has shown that cooperative learning model is superior and believed to be a learning model that is more appropriate to teach mastery of technical skills base running in elementary school, it is necessary teacher of physical education to implement and develop cooperative learning in the learning process of physical education in elementary school.

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