Efforts to Improve Athletic Achievement in Short Distance Running by Providing Strengthening to Class X Students of TKI 1 SMK Negeri 2 Majene

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Abstract: The problems to be studied in this research are: (a) How can you improve your ability to run short distances by applying reinforcement? (b) What is the effect of strengthening on short distance running? The aim of this research is (a) to find out how to increase short distance running ability by applying reinforcement. This research uses two rounds of action research. Each round consists of two stages, namely: design, activities and observations. Reflection and revision The target of this research is Class From the results of the analysis, it was found that student learning achievement increased from cycles I to III, namely, cycle I (62%), cycle II (74%) and cycle III (91%). The conclusion of this research is that providing reinforcement can influence the short distance running ability of class X TKJ 1 students at SMK Negeri 2 Majene and the learning model can be used as an alternative in the PJOK learning process.
Keywords: Athletic Achievement, strengthening for class X students

INTRODUCTION

Physical education is basically an integral part of the overall education system, aiming to develop aspects of health, physical fitness, critical thinking skills, emotional stability, social skills, reasoning and moral actions through physical activities and sports.

In the intensification of education as a process of human development that lasts a lifetime, the role of Physical Education is very important, which provides opportunities for students to be directly involved in various learning experiences through physical activities, playing and sports carried out systematically. Providing learning experiences is directed at developing and forming a healthy and active lifestyle throughout life.

Physical education is a medium for encouraging the development of motor skills, physical abilities, knowledge, reasoning, appreciation of values (mental-emotional-spiritual-social attitudes), and the habit of healthy lifestyles which lead to stimulating balanced growth and development. With Physical Education, students will obtain various expressions that are closely related to pleasant personal impressions as well as various expressions that are creative, innovative, skilled, have physical fitness, healthy living habits and have knowledge and understanding of human movement.

In the Physical Education learning process, teachers are expected to teach various basic movement skills, techniques and strategies for games and sports, internalization of values (sportsmanship, honesty, cooperation, etc.) as well as habituation to a healthy lifestyle. The implementation is not through conventional teaching in the classroom which is a theoretical study, but involves physical, mental, intellectual, emotional and social elements. The activities provided in teaching must have a didactic-methodical touch, so that the activities carried out can achieve the teaching objectives.

There is no education that does not have a pedagogical target, and no education is complete without physical education, because movement as physical activity is the basis for humans to know the world and themselves which naturally develop in line with the times. Based on the descriptions above, So the author finally took the title "Efforts to Improve Athletic Achievement in Short Distance Running by Providing Strengthening to Class X Students of TKI 1 SMK Negeri 2 Majene

METHODS

This research is action research because the research was conducted to solve learning problems in the classroom. This research also includes descriptive research, because it describes how a learning technique is applied and how the desired results can be achieved.

According to Oja and Sumarjan (in Sugiarti Point, 1997: 8) there are 4 types of action research, namely (1) teacher action research as a researcher, (2) collaborative action research, (3) interactive simulative action research and (4) action research. social experiment. In this action research, a form of collaborative research is used with the training course teacher and in the teaching and learning process in the classroom, the teacher acting as the teacher is the training course teacher, while the researcher acts as an observer, the person in full responsibility for the action research is the observer (researcher). The main aim of this action research is to improve learning outcomes in the classroom where researchers are fully involved in research starting from planning, action, observation and reflection.

In this research, the researcher collaborated with the training teacher, the presence of the researcher as a teacher in the middle of the teaching and learning process as an observer was informed to the students. In this way, it is hoped that there will be cooperation from all students and can obtain data that is as objective as possible for the validity of the required data. A research location is a place used to conduct research to obtain the desired data. This research took place in the SMK Negeri 2 Majene school environment.

This research uses Classroom Action Research (PTK). According to the PGSM Project Coaching team. PK is a form of reflective study by the perpetrators of actions carried out to increase the rational stability of their actions in carrying out tasks, deepen understanding of the actions carried out, and improve the conditions in which the learning practice is carried out (in Mukhlis, 2003: 3). Meanwhile, according to Mukhlis (2003:5) PTK is a form of systematic, reflective study by those taking action to improve the conditions of the learning being carried out. The main aim of PTK is to improve/increase learning practices on an ongoing basis, while the aim of its inclusion is to foster a culture of research among teachers (Mukhlis, 2003:5). PTK consists of four stages, namely planning, action, observation and reflection.

1. Initial plan/plan, before conducting research the researcher formulates the problem, objectives and makes an action plan, including research instruments and learning tools.
2. Activities and observations, including actions carried out by researchers as an effort to build students' understanding of concepts and observe the results or impacts of the provision of reinforcement.
3. Reflection, the researcher examines and considers the results or impacts of the actions taken based on the observation sheet filled in by the observer.
4. Revised design/plan, based on the results of the observer's reflection, creates a revised plan to be implemented in the next cycle.

Observations are divided into two rounds, where in each round the same behavior is recognized (the same flow of activities) and discusses one sub-topic which ends with a practical test at the end of each round. Made in two rounds, it was intended to improve the teaching system implemented. The instruments used in this research consisted of:

1. Syllabus
   Namely a set of plans and arrangements regarding classroom management learning activities, as well as assessment of learning outcomes.
2. Learning Implementation Plan (RPP)

This is a learning tool that is used as a teacher's guide in teaching and is prepared for each round. Each RPP contains basic competencies, indicators of achievement of learning outcomes, specific learning objectives and teaching and learning activities.

3. Teaching and Learning Activity Observation Sheet
   a. Reinforcement management observation sheet, to observe the teacher's ability to manage learning.
   b. Student and teacher activity observation sheet to observe student and teacher activities during the learning process.
   c. Raise Motivation for Giving Reinforcement
   d. This questionnaire is used to find out whether the students like the learning model offered by the author.
   e. Practice test
      This test is prepared based on the learning objectives to be achieved, used to measure the ability to understand the material being taught. This practical test is given at the end of each round.
   f. Observation sheet for assessing student performance in the psychomotor domain.
   g. Observation sheet for assessing student performance in the affective domain.

Data Collection Methods for this research were obtained through observation of the process of providing reinforcement, observation of student and teacher activities, student motivation questionnaires and practical tests. To find out the effectiveness of a method in learning activities, data analysis needs to be carried out. This research uses qualitative descriptive analysis techniques, namely a research method that describes reality or facts according to the data obtained with the aim of knowing the learning achievements achieved by students and also to obtain student responses to learning activities and student activities during the learning process. To analyze the success rate or percentage of student success after each round of the teaching and learning process, this is done by providing an evaluation in the form of a practical test at the end of each round. This analysis is calculated using simple statistics, namely:

1. To assess practice tests
   Researchers add up the scores obtained by students which are then divided by the number of students in the class so that the average required for practical tests can be formulated.

$$\overline{X} = \frac{\sum X}{\sum N}$$

Dengan $\overline{X}$ = Average value

$\sum X$ = The sum of all student grades

$\sum N$ = The number of students

2. For complete learning
   There are two categories of learning completeness, namely individual and classical. Based on the instructions for implementing teaching and learning in the 1994 curriculum (Depdikbud, 1994), students have completed learning if the class gets 85% which has achieved an absorption capacity of equal to.
   To calculate the percentage of learning completeness, the following formula is used:

$$P = \frac{\sum Siswa\, yang\, tuntas\, belajar}{\sum siswa} \, x100\%$$

3. For observation sheet
   a. Obaservation sheet processing performance methods and experiments
      To calculate the observation sheet processing the performance and experimental methods, the following formula is used:

$$\overline{X} = \frac{P_1 + \_ P_2}{2}$$

Where: P1 = observation 1 and P2 = observer 2

b. Teacher and student activity observation sheet

To calculate teacher and student activity observation sheets, the following formula is used:

$$\% = \frac{\overline{X}}{\sum X} x100\% \quad \text{with}$$

$$\overline{X} = \frac{jumlah\,hasil\,pengamatan}{jumlah\,pengamat} = \frac{P_1 + P_2}{2}$$

Where: % = Questionnaire Percentage

$\overline{X}$ = Average

$\sum \overline{X}$ = Average Amount

P1 = Observer 1
P2 = Observer 2

To calculate the questionnaire percentage, the following formula is used:

$$P = \frac{Z}{n} \quad \text{where} \quad P = \text{Percentage}$$

Z = Alternative answer (A,B,C,D)
N = Number of respondents

Observed aspects:

Conducting an analysis of observational data using a rating scale, this means whether the research can be stopped or continued in the next cycle.

a. Psychomotor Domain

The assessment scale used is in accordance with the planned instrument, namely between 1-3 (1 = not quite right, 2 = enough and 3 = right) for the assessment aspect. This means that:

- The minimum score obtained by students is: 1 x 4 = 4
- The maximum score obtained by students is: 3 x 4 = 12

- Medium score is : $\frac{(4+12)}{2} = 8$

- A score range is created and converted into a report card as an assessment guide

Table 1.1 Psychomotor Domain Assessment Guidelines

No	Score range	Report Card	Predikat
1	11-12	A	Very good
2	9-10	B	Good
3	7-8	C	Enough
4	5-6	K	Not enough
5	3-4	KS	Very little

Learning quality is said to be good if students who get a score above 70 reach 85% or more of the total students.

RESULT AND DISCUSSION

1. Cycle I
   a. Planning Stage

At this stage the researcher prepared learning which consisted of lesson plan 1, Psychomotor test questions 1 and supporting teaching tools. Apart from that, observation sheets for demonstration method learning management and student activity observation sheets were also prepared.

b. Activity and Implementation Stage

The implementation of teaching and learning activities for cycle I was carried out on July 16 2023 in Class X TKI 1 with a total of 35 students. The teaching and learning process refers to the lesson plans that have been prepared. Observations are carried out simultaneously with the implementation of teaching and learning.

At the end of the teaching and learning process, students are given the Psychomotor I test with the aim of determining student success in the teaching and learning process that has been carried out. The research data in cycle I are as follows:

Table 2.1. Learning Management in cycles

No	Aspects observed	Average		Rating
		P1	P2	
I	KBM observations A. Introduction 1. Motivate students 2. Convey learning objectives	2 2	2 3	2 2,5
	B. Core activities 1. Discuss the activity steps with students. 2. Guiding students to carry out activities 3. Guide students to discuss the results of activities in groups 4. Provide opportunities for students to present the results of teaching and learning activities 5.Guide students to formulate conclusions/discover concepts	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3
	C. Closing 1. Guide students to make a summary 2. Provide evaluation	3 3	3 3	3 3
II	Time Management	2	2	2
III	Class Enthusiasm 1. Enthusiastic Students 2. Enthusiastic Teacher	3 3	2 3	2,5 3
	Jumlah	33	33	33

Description: Value: Criteria
  a : Not good
  b : Not good
  c : Pretty Good
  d : OK

Based on the table above, the aspects that receive poor criteria are motivating students, conveying learning objectives, time management and enthusiastic students. The four aspects that received poor ratings above are weaknesses that occurred in cycle I and will be used as study material for reflection and revision that will be carried out in cycle II. The results of the next observation are teacher and student activities as in the following table.

Table 2.2 Recapitulation of Student Psychomotor Test Results in Cycle I

No	Uraian	Cycle I Results

1	Average Psychomotor test score	68
2	Number of students who have completed their studies	20
3	Percentage of learning completeness	57%

From the table above, it can be explained that by applying the Reinforcement method, the average student learning presentation score was 70 and learning completion reached 62% or 22 students out of 35 students had completed learning. These results show that in the first cycle classically students had not completed their learning, because students who obtained a score of 70 were only 62% less than the desired percentage of completeness, namely 85%. This is because students still feel new and do not understand what the teacher means and uses.

   c. Analysis of Cycle I research data

      1. Psychomotor Domain

      62% of students who got a score above 70 were classically in the incomplete category.

      2. Reflection

In implementing teaching and learning activities, information was obtained from observations as follows:

      1) Teachers are not good at motivating students and conveying learning objectives.

      2) Teachers are not good at time management

      3) Students are less enthusiastic during learning

      3. Revision

There are still shortcomings in the implementation of teaching and learning activities in cycle I, so revisions need to be carried out in the next cycle.

1) Teachers need to be more skilled in motivating students and clearer in conveying learning objectives. Where students are invited to be directly involved in every activity that will be carried out.

2) Teachers need to distribute time well by adding information they feel is necessary and giving notes.

3) Teachers must be more skilled and enthusiastic in motivating students so that students can be more enthusiastic

  2. Cycle II

    a. Planning stage

At this stage the researcher prepared learning tools consisting of lesson plan 2, Psychomotor test questions 2 and supporting teaching tools. Apart from that, learning management observation sheets and student observation sheets were also prepared.

    b. Activity and implementation stages

The implementation of teaching and learning activities for cycle II was carried out on August 13 2023 in Class X TKI 1 with a total of 35 students. In this case the researcher acts as a teacher. The teaching and learning process refers to the lesson plan by paying attention to revisions in cycle I, so that errors or shortcomings in cycle I are not repeated in cycle II.

Observations are carried out simultaneously with the implementation of teaching and learning. As an observer, the researcher is assisted by a teacher. At the end of the teaching and learning process, students are given the Psychomotor II test with the aim of determining the level of student success in the teaching and learning process carried out. The instrument used is practical test II. The research data in cycle II are as follows:

Table 3.1 Learning Management in Cycle II

No	Aspects observed	Average	Rating

			P1	P2	
I	KBM observations A. Introduction				
	1. Motivate students		3	3	3
	2. Convey learning objectives		3	4	3,5
	B. Core Activities				
	1. Discuss the activity steps with students.		3	4	3,5
	2. Guiding students to carry out activities				
	3. Guide students to discuss the results of activities in groups		4	4	4
			4	4	4
	4. Provide opportunities for students to present the results of teaching and learning activities		4	4	4
	5. Guide students to formulate conclusions/discover concepts		3	3	3
	C. Conclusion				
	1. Guide students to make a summary		3	4	3,5
	2. Provide evaluation		4	4	4
II	Time Management		3	3	2
III	Class Enthusiasm				
	1. Enthusiastic Students		4	3	3,5
	2. Enthusiastic Teacher		4	4	4
	Amount		41	43	42

Description: Value: Criteria
 a : Not good
 b : Not good
 c : Pretty Good
 d : OK

From the table above, it can be seen that the aspects observed in teaching and learning activities (cycle II) carried out by the teacher by applying the Reinforcement learning method received quite good assessments from observers. This means that in all assessments there are no lower marks. However, this assessment is not yet an optimal result, for this reason there are several aspects that need attention to improve the implementation of further learning. These aspects are motivating students, guiding students to formulate conclusions/discover concepts and time management. By perfecting the above aspects in applying the Democratic method, it is hoped that students will be able to conclude what they have learned and express their opinions so that they will understand more about what they have done.

Below are presented the results of observations of teacher and student activities

Table 3.2 Teacher and Student Activities in Cycle II

No	Observed teacher activities	Percentage
1	Conveying goals	6,7
2	Motivate students/formulate problems	6,7
3	Link it to the next lesson	6,7
4	Delivering material/steps/strategies	10,7
5	Explain difficult material	11,7
6	Guiding and observing students in discovering concepts	25,0
7	Ask students to present and discuss the results of the activity	8,2

8	Provide feedback	16,6
9	Guide students to summarize lessons	6,7
No	Observed student activities	Percentage
1	Listen/pay attention to the teacher's explanation	17,9
2	Reading student books	12,1
3	Work with fellow group members	21,8
4	Discussion between students/between students and teachers	13,8
5	Presenting learning results	4,6
6	Ask/respond to questions/ideas	5,4
7	Write relevant to KBM	7,7
8	Summarize learning	6,7
9	Doing evaluation tests	10,8

Based on the table above, it appears that the most dominant teacher activity in cycle II is guiding and observing students doing exercises, namely 25%. When compared with cycle I, this activity has increased. Teacher activities that experienced a decrease were providing feedback (16.6%), explaining/training to use tools (11.7). Asking students to discuss and present the results of activities (8.2%) and guiding students to correct mistakes (6.7%)

Meanwhile, the most important student activity in cycle II is practice using tools, namely (21%). When compared with cycle I, this activity has increased. The student activity that decreased was listening/paying attention to the teacher's explanation (17.9%). Discussion between students / between students and teachers (13.8%), practicing relevant teaching and learning activities (7.7%) and summarizing learning (6.7%). The student activities that increased were paying attention to demonstrations (12.1%), presenting learning outcomes (4.6%), responding/asking questions/ideas (5.4%) and practicing with other students (10.8%)

Table 3.3 Recapitulation of Student Psychomotor Test Results in Cycle II

No	Description	Cycle II Results
1	Average Psychomotor test score	75
2	Number of students who have completed their studies	26
3	Percentage of learning completeness	74%

Based on the table above, the average practical test score is 75 and of the 35 students who have completed it, 26 students have not yet achieved learning completion. So classically the learning completeness that has been achieved is 74%, which is smaller than the desired percentage of completeness, namely 85%. This is because students still feel new and do not understand what the teacher means and uses.

The results in cycle II experienced a better improvement than cycle I. The increase in learning outcomes in cycle II was influenced by an increase in the teacher's ability to apply learning. So that students become more accustomed to learning like this so that it is easier for students to understand the material that has been given.

c. Analysis of research data in Cycle II
   1. Psychomotor Domain
      74% of students who got a score above 70 were classically in the incomplete category.
d. Reflection
   In implementing teaching and learning activities, information was obtained from observations as follows

1. Teachers are not good at motivating students and conveying learning objectives.
2. Teachers are not good at time management
3. Students are less enthusiastic during learning

e. Revision
d. Revision

There are still shortcomings in the implementation of teaching and learning activities in cycle II, so revisions need to be carried out in the next cycle.

1) Teachers need to be more skilled in motivating students and clearer in conveying learning objectives. Where students are invited to be directly involved in every activity that will be carried out.

2) Teachers need to distribute time well by adding information they feel is necessary and giving notes.

3) Teachers must be more skilled and enthusiastic in motivating students so that students can be more enthusiastic.

3. Cycle III
   a. Planning stage

   At this stage the researcher prepared learning tools consisting of lesson plan 2, Psychomotor test questions 2 and supporting teaching tools. Apart from that, observation sheets for management of Reinforcement method learning and student observation sheets were also prepared.

   b. Activity and implementation stages

   The implementation of teaching and learning activities for cycle II was carried out on September 3 2023 in Class X TKI 1 with a total of 35 students. In this case the researcher acts as a teacher. The teaching and learning process refers to the lesson plan by paying attention to revisions in cycles I and II so that errors or deficiencies in cycles I and II are not repeated in cycle III,

   Observations are carried out simultaneously with the implementation of teaching and learning. As an observer, the researcher is assisted by a teacher. At the end of the teaching and learning process, students are given the Psychomotor III test with the aim of determining the level of student success in the teaching and learning process carried out. The instrument used is practical test III. The research data in cycle III are as follows:

Table 4.1 Learning Management in Cycle III

No	Aspects observed	Average		Rating
		P1	P2	
I	KBM observations A. Introduction 　1. Motivate students 　2. Convey learning objectives	 3 3	 3 4	 3 3,5
	B. Core Activities 　1. Discuss the activity steps with students. 　2. Guiding students to carry out activities 　3. Guide students to discuss the results of activities in groups 　4. Provide opportunities for students to present the results of teaching and learning activities 　5. Guide students to formulate conclusions/discover concepts	 3 4 4 3	 4 4 4 3	 3,5 4 4 3

	C. Conclusion			
	1. Guide students to make a summary	3	4	3,5
	2. Provide evaluation	4	4	4
II	Time Management	3	3	2
III	Class Enthusiasm			
	1. Enthusiastic Students	4	3	3,5
	2. Enthusiastic Teacher	4	4	4
	Amount	41	43	42

Description: Value: Criteria
 a : Not good
 b : Not good
 c : Pretty Good
 d : OK

From the table above, it can be seen that the aspects observed in teaching and learning activities (cycle II) carried out by the teacher by applying the Reinforcement learning method received quite good assessments from observers. This means that in all assessments there are no lower marks. However, this assessment is not yet an optimal result, for this reason there are several aspects that need attention to improve the implementation of further learning. These aspects are motivating students, guiding students to formulate conclusions/discover concepts and time management.

By perfecting the above aspects in applying the Democratic method, it is hoped that students will be able to summarize what they have learned and express their opinions so that they will understand more about what they have done.

Below are presented the results of observations of teacher and student activities

Table 4.2 Recapitulation of Student Psychomotor Test Results in Cycle III

No	Description	Cycle III Results
1	Average Psychomotor test score	81
2	Number of students who have completed their studies	32
3	Percentage of learning completeness	91%

Based on the table above, the average practical test score is 81 and of the 35 students who have completed it, 32 students have not yet achieved learning completion. So classically the learning completeness that has been achieved is 91% (including the complete category). The results in cycle III improved better than cycle II. The increase in learning outcomes in cycle III is influenced by an increase in the teacher's ability to apply Reinforcement learning so that students become more accustomed to this kind of learning so that it is easier for students to understand the material that has been given.

c. Analysis of research data in Cycle III
    1. Psychomotor Domain
        91% of students who got a score above 70 were classically in the complete category.
        Considering that the results of observations during cycle III, the scores obtained by students in the assessment of performance in the psychomotor domain were 88% with scores above 70, this research was concluded in cycle III

d. Reflection
    At this stage we will examine what has been implemented well and what is still not good in the teaching and learning process. From the data that has been obtained it can be described as follows:

1. During the teaching and learning process the teacher has carried out all the lessons well. Even though there are several aspects that are not yet perfect, the percentage of implementation for each aspect is quite large.

2. Based on observation data, it is known that students are active during the learning process
3. Weaknesses in previous cycles have been corrected and improved so that they become better
4. Student learning outcomes in cycle II reach completeness.

e. Implementation Revision

In cycle III the teacher has implemented learning well and seen from student activities and student learning outcomes, the implementation of the teaching and learning process has gone well. So there is no need for too many revisions, but what needs to be taken into account for the next action is to maximize and maintain what already exists with the aim that in the implementation of the teaching and learning process, the implementation of learning can improve the teaching and learning process so that the learning objectives can be achieved.

Discussion

1. Completeness of student learning outcomes

The results of this research show that guided meeting learning has a positive impact in improving student learning achievement. This can be seen from the increasingly solid understanding of students towards the material presented by the teacher (learning mastery increases from cycles I, II and III) for the psychomotor domain, namely cycle I (62%), cycle II (74%) and cycle III (91%) In cycle III, students' classical learning completeness has been achieved.

2. Teacher's ability to manage learning

Based on data analysis, it was found that student activity in the teaching and learning process by implementing Reinforcement in each cycle had increased. This has a positive impact on student learning achievement, which can be shown by the increase in students' average scores in each cycle which continues to increase.

3. Student Activities in Learning

Based on data analysis, it was found that student activities in the learning process with the most dominant learning model were studying with fellow group members, listening/paying attention to the teacher's explanation and discussions between students/between students and the teacher. So it can be said that student activities can be categorized as active.

Meanwhile, the teacher's activities during learning have carried out the steps for providing reinforcement well. This can be seen from the teacher's activities which appear including the activities of guiding and observing students in practicing learning outcomes, explaining/training using tools, providing feedback in a quite large percentage for the above activities.

CONCLUSSION

From the results of learning activities that have been carried out for three cycles and based on all the discussions and analyzes that have been carried out, it can be concluded as follows

1. Physical education learning by implementing this reinforcement has a positive impact in improving student learning achievement which is marked by increasing student learning completeness in each cycle, namely cycle I (62%), cycle II (74%) and cycle III (91%)
2. The application of this learning method has a positive influence, namely it can increase students' learning motivation as shown by the average student answer which states that students are interested and interested in this learning method so that they feel motivated to learn.

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