

Physical Fitness Level Survey of Phase C Students at Dukuh II Public Elementary School, Ngadiluwih District

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Abstract

Physical fitness is one of the main indicators of student health quality, and is of particular concern in phase C (grades V and VI) because it coincides with the stage of rapid physical and motor development. This study aims to determine the level of physical fitness of phase C students at Dukuh II Elementary School, Ngadiluwih District, using the Indonesian Student Fitness Test (TKSI) instrument. The study used a quantitative approach with a descriptive survey design. The entire population of 35 students was sampled through a total sampling technique, consisting of 19 male students and 16 female students. Data were collected through five components of the TKSI test, namely Child Ball (coordination), Tok-Tok Ball (accuracy), Move The Ball (abdominal muscle strength), Shuttle Run 8×10 m (agility), and 600-meter run (cardiorespiratory endurance), then analyzed using T-Score and Norm Reference Assessment (PAN). The results of the study showed that the physical fitness level of male students was in the category of very good 5.26%, good 21.05%, sufficient 47.36%, less than 15.79%, and very less than 10.53%; while female students were in the category of very good 0%, good 31.25%, sufficient 37.50%, less than 25%, and very less than 6.25%. In general, the physical fitness of phase C students at SD Negeri Dukuh II, both male and female, was classified as sufficient, so that more targeted and sustainable physical activity development was needed.

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1. INTRODUCTION

Physical fitness is considered a key indicator of a person's overall health. Adequate physical activity in children can reduce the risk of non-communicable diseases and support optimal cognitive, emotional, and social development (Adi et al., 2025). Attention to students' physical fitness is further strengthened through the implementation of the Independent Curriculum, which focuses on developing a Pancasila Student Profile, including through the development of a healthy and active lifestyle.

Various reports indicate that the physical activity levels of school-age children in Indonesia remain relatively low. Data from the Indonesian Ministry of Health indicates that more than 30% of elementary school-age children have physical activity levels below established recommendations (Fitriani et al., 2020). High gadget use also contributes to low levels of physical fitness in elementary

school students (Wibowo et al., 2023), and online learning during the COVID-19 pandemic has also been shown to decrease students' physical fitness, particularly in the cardiorespiratory endurance component (Dewangga & Amarseto, 2023).

Phase C (grades 5 and 6 of elementary school) is a crucial developmental stage because it coincides with rapid physical and motor development. Therefore, measuring physical fitness during this phase requires valid and reliable instruments (Hidayat et al., 2023). However, physical fitness measurement in elementary schools is still suboptimal because many physical education teachers do not yet use standardized instruments for fitness evaluation. The Indonesian government developed the Indonesian Student Fitness Test (TKSI) as an effort to standardize student physical fitness measurements, which accommodates the components of strength, speed, endurance, and agility. However, the use of standardized physical fitness instruments, including the TKSI, has only been implemented in approximately 40% of elementary schools (Kurniawan et al., 2023).

The issue of declining physical fitness in school-aged children has become a concern in various countries, not only in Indonesia. The World Health Organization (WHO) recommends that children and adolescents engage in moderate to vigorous physical activity for an average of 60 minutes per day to maintain physical fitness and prevent the risk of non-communicable diseases later in life (Bull et al., 2020). This recommendation emphasizes that monitoring students' physical fitness through valid instruments, such as the TKSI, is a strategic step to ensure children's physical activity levels meet recommended standards and serves as a basis for evaluating physical education programs in educational institutions.

Theoretically, physical fitness is understood as the body's ability to carry out various daily physical activities effectively and efficiently without experiencing excessive fatigue, while still having energy reserves for other activities (Ilyas, 2025). Physical fitness components are generally divided into two groups: health-related fitness, such as cardiorespiratory endurance, muscle strength, and flexibility, and skill-related fitness, such as coordination, agility, and accuracy. The TKSI instrument used in this study accommodates both groups of components, thus providing a comprehensive picture of the physical fitness condition of students. A good level of physical fitness has also been shown to be positively related to physical health, mental health, and cognitive abilities in children and adolescents (Lubans et al., 2016).

Previous research has shown variations in physical fitness levels of students across Indonesia. Rahmawati and Putra (2021) found that the majority of elementary school students were in the moderate to low physical fitness category, while Alfian (2023) reported that the physical fitness of students in special sports classes was mostly in the adequate category, with female students tending to be in the poor category. Studies on the physical fitness of phase C students that specifically utilize the TKSI instrument are still relatively limited, so adequate empirical information for this age group is not yet available.

The regional context further reinforces the urgency of this research. Kediri Regency, where Dukuh II Public Elementary School is located, is one of the areas with a large number of elementary schools in East Java Province. However, empirical data on students' physical fitness levels using standardized instruments such as the TKSI in this region remains very limited. This lack of data makes it difficult for schools and local education offices to design evidence-based physical fitness policies and programs.

Furthermore, the transition from the previous curriculum to the Independent Curriculum has also driven a shift in the orientation of Physical Education, Sports, and Health (PJOK) subjects, from prioritizing mastery of specific sports to fostering sustainable, healthy, and active lifestyle habits. This shift in orientation requires the availability of baseline data on students' physical fitness so that PJOK learning programs can be designed with greater precision and measurable success over time.

Based on this gap, this study aims to determine and describe the physical fitness levels of Phase C students at Dukuh II Public Elementary School, Ngadiluwih District, using the Indonesian Student Fitness Test (TKSI) instrument. This research is expected to enrich empirical studies on the application of TKSI to Phase C students and provide a basis for teachers and schools in developing more targeted physical fitness development programs. The main contribution of this study is threefold. First, it provides the first empirical, TKSI-based baseline data on Phase C physical fitness for Dukuh II Public Elementary School and, more broadly, for the Ngadiluwih District area of Kediri Regency, a region where such standardized data have previously been unavailable. Second, by reporting results disaggregated across all five TKSI components separately for male and female students, this study identifies specific component-level strengths and weaknesses, most notably the comparatively low achievement in the accuracy (Tok-Tok Ball) and coordination (Child Ball) components, rather than offering only an aggregate fitness score, thereby generating more actionable diagnostic information than prior studies that reported overall category distributions alone. Third, the study translates these component-specific findings into concrete, practically applicable recommendations for PJOK instruction and school-level policy, positioning the research not only as a descriptive survey but as a direct evidentiary basis for designing targeted physical fitness interventions in similar semi-rural elementary school settings.

2. METHOD

This study applies a quantitative approach with a descriptive survey design to obtain an overview of the level of physical fitness of students based on data from direct measurements in the field, without providing treatment or intervention to the research subjects.

The study population was all phase C students (grades V and VI) at Dukuh II Public Elementary School, Ngadiluwih District, Kediri Regency, totaling 35 students. The entire population was sampled using the total sampling technique (Suriani & Jailani, 2023), consisting of 19 male students and 16 female students. In terms of characteristics, the participants were aged between 10 and 12 years, comprising students from both grade V and grade VI, with grade VI students slightly outnumbering grade V students. All participants were enrolled as regular students at Dukuh II Public Elementary School and reported no diagnosed physical disabilities or chronic illnesses that would prevent them from performing physical activity, based on information provided by the homeroom and physical education teachers prior to testing. Most students came from families residing in the surrounding village area of Ngadiluwih District, a semi-rural setting where daily mobility, informal outdoor play, and participation in school-based physical education constituted their primary sources of physical activity, as extracurricular sports facilities at the school were limited. These characteristics are relevant to interpreting the findings, as the relatively homogeneous socio-environmental background of the participants suggests that the physical fitness profile obtained largely reflects the

typical activity conditions of children in similar semi-rural elementary school settings, rather than being confounded by extreme variation in age, health status, or access to structured sports training.

The research variable is a single variable, namely the physical fitness level of phase C students, which is measured using the Indonesian Student Fitness Test (TKSI) instrument developed by the Ministry of Education, Culture, Research, and Technology (Bile et al., 2025). This instrument consists of five test components, which are explained in detail below.

The Child Ball Test is used to measure students' motor coordination abilities, particularly hand-eye coordination. The test involves throwing a tennis ball with one hand toward a wall from a distance of 2 meters, then catching the rebound with both hands. Students are given 30 seconds to throw repeatedly, and scores are determined based on the number of successful catches, as per the test's guidelines.

The Knock-Knock Ball Test is used to measure students' accuracy and precision in throwing a ball at a target. Students throw a tennis ball from a distance of 3 meters using one hand 10 times at a circular target with a diameter of 30 cm. Scores are determined based on the number of balls successfully hit the target out of the 10 attempts.

The Move the Ball test measures students' abdominal muscle strength through a modified sit-up. Students lie on their backs and move as many balls as possible from a box between their legs to an area above their heads within 30 seconds. Scores are determined based on the number of balls successfully moved during the test.

The 8x10m Shuttle Run test measures agility through running back and forth while moving objects along each track. Participants run from the starting line to the end of the track to retrieve a ball, return to the starting line to place it in a basket, and repeat this motion until all the balls have been successfully moved. Scores are determined based on the time required to complete the entire test.

The 600-meter run test is used to measure a student's cardiorespiratory endurance. Participants run 600 meters at a moderate pace until they reach the finish line, and their time is recorded from the start signal until they cross the finish line. Scores are determined based on the time it takes to complete the run; the shorter the time, the better the endurance rating.

Data collection was conducted through direct implementation of the five components of the TKSI test by all students, accompanied by researchers and physical education teachers as examiners. Each student completed the entire series of tests according to standard procedures in the TKSI guidelines, and the results were recorded on a prepared assessment sheet.

The measurement data from the five test components, which have different units, were first converted into T-Scores so that they could be compared proportionally (Sudijono, 2015). The total physical fitness score for each student was obtained by adding the T-Scores of the five components, then classified into five categories—very good, good, sufficient, poor, and very poor—using Norm Reference Assessment (PAN) based on the average value and standard deviation (Azwar, 2016). Data analysis was performed using descriptive statistics in the form of means, standard deviations, and percentages with the help of Microsoft Excel 365.

The use of T-Scores in this study was based on the need to standardize the different units of measurement for each component of the TKSI test, such as the number of repetitions, travel time, and the number of balls successfully hit the target. Without this standardization process, the raw scores

for each component cannot be added together or directly compared. Through T-Score conversion, each test component obtained a score with an average of 50 and a standard deviation of 10, so that the contribution of each component to the total physical fitness score was proportionally equal (Sudijono, 2015).

The TKSI instrument used in this study is an official instrument developed and standardized by the Ministry of Primary and Secondary Education, so the assessment norms used are adapted to the age characteristics and developmental stages of students in Indonesia. The use of this standardized instrument is essential to ensure that measurement results can be compared objectively across regions and over time, and to avoid measurement bias due to inconsistent instrument use.

The validity and reliability of the TKSI instrument itself are supported by several sources. In its development, the instrument was constructed by the national instrument development team through a standard procedure consisting of needs analysis, draft product development, expert judgment, small-group tryout, large-group field tryout, and validity, reliability, and practicality testing; the large-group field tryout alone involved approximately 3,600 students across nine provinces in Indonesia to establish norm references appropriate to the national student population. Empirical validation studies further support the instrument's psychometric quality: Hidayat et al. (2023) confirmed that the TKSI possesses adequate validity and reliability for measuring the physical fitness of elementary school students, while Tumangger et al. (2024) reported high concurrent validity for TKSI, evidenced by significant correlation coefficients between TKSI scores and established fitness measures such as the hand-eye coordination test, vertical jump test, T-test, hand touch reaction test, dipping test, and beep test. More specifically for Phase C, Warsito et al. (2025) reported an overall reliability coefficient of 0.609 for the TKSI Phase C battery, a value in the acceptable range, while noting that the Tok-Tok Ball item showed comparatively low item validity ($r = 0.101$; $p = 0.215$) relative to the other four components. This last finding is particularly relevant to the present study, as the Tok-Tok Ball (accuracy) component was also the component with the lowest achievement among participants, suggesting that both genuine skill limitations and a degree of inherent measurement variability in this specific item may have jointly contributed to the low accuracy scores observed.

3. RESULTS AND DISCUSSION

The results of measuring the physical fitness level of phase C students at SD Negeri Dukuh II using the TKSI instrument are presented in Table 1 (descriptive statistics) and Table 2 (category distribution). The total physical fitness score of male students ($n = 19$) had an average of 250.00 with a standard deviation of 37.43, a minimum score of 169.59, and a maximum score of 312.85. The total score of female students ($n = 16$) had an average of 250.13 with a standard deviation of 26.80, a minimum score of 188.69, and a maximum score of 289.02.

Table 1. Descriptive Statistics of Total Physical Fitness Scores of Phase C Students

Group	N	Mean	SD	Minimum	Maximum
Son	19	250,00	37,43	169,59	312,85
Daughter	16	250,13	26,80	188,69	289,02

Based on the Norm Reference Assessment, the distribution of physical fitness categories for male students is as follows: very good 5.26% (1 student), good 21.05% (4 students), sufficient 47.36% (9 students), less than 15.79% (3 students), and very less than 10.53% (2 students). The distribution

of categories for female students is: very good 0% (0 students), good 31.25% (5 students), sufficient 37.50% (6 students), less than 25% (4 students), and very less than 6.25% (1 student).

Table 2. Distribution of Physical Fitness Level Categories of Phase C Students

Category	Son (f)	Son (%)	Princess (f)	Daughter (%)
Very good	1	5,26%	0	0%
Good	4	21,05%	5	31,25%
Enough	9	47,36%	6	37,50%
Not enough	3	15,79%	4	25,00%
Very less	2	10,53%	1	6,25%
Total	19	100%	16	100%

The average score of 250.00 for the boys' group and 250.13 for the girls' group reinforces the grouping results, so that in general the physical fitness level of phase C students at Dukuh II Public Elementary School — both boys and girls — is in the sufficient category based on the TKSI assessment norms. In detail, the measurement results for the five test components are presented in Table 3.

Table 3. Summary of Results per TKSI Test Component Based on Gender

Test Components	Group	Mean	SD	Dominant Category (%)
Child Ball (Coordination)	Son	50,00	10,00	Enough (36.84%)
	Daughter	50,00	10,00	Less (37.50%)
Knock Ball (Accuracy)	Son	50,00	10,00	Less (47.36%)
	Daughter	50,00	10,00	Less (37.50%)
Move The Ball (Muscle Strength)	Son	50,00	10,00	Enough (47.37%)
	Daughter	50,00	10,00	Enough (37.50%)
Shuttle Run 8×10 m (Agility)	Son	50,00	10,00	Enough (36.84%)
	Daughter	50,00	10,00	Enough (62.50%)
600m Run (Endurance)	Son	50,00	10,00	Enough (57.89%)
	Daughter	50,13	9,74	Enough (37.50%)

In the Child Ball component, the average score of male and female students was 50.00 with a standard deviation of 10.00. The scores of male students ranged from 30.35 to 66.05, while the scores of female students ranged from 36.05 to 67.36. Based on the assessment norms, the dominant category in the male group was sufficient (36.84%), while in the female group the dominant category was less (37.50%), which indicates that the eye-hand coordination ability of female students in this sample relatively needs more attention.

In the Knock-Knock Ball component, the average score for both groups was also 50.00 with a standard deviation of 10.00. The scores for male students ranged from 36.39 to 66.80, while those for female students ranged from 40.19 to 75.05. The dominant category in both groups was less, namely 47.36% for males and 37.50% for females, making the accuracy component the lowest achievement among the five test components in both groups.

In the Move the Ball component, the scores of male students ranged from 32.69 to 62.13, while those of female students ranged from 28.78 to 64.24, with an average of 50.00 in both groups. The dominant category in the male group was sufficient (47.37%), as was the case in the female group

(37.50%), indicating that the abdominal muscle strength of phase C students was generally at an adequate level.

In the 8×10 m Shuttle Run component, the scores of male students ranged from 28.54 to 65.39, while those of female students ranged from 25.91 to 72.51. The dominant category in the male group was sufficient (36.84%), while in the female group the proportion of the sufficient category was much higher, namely 62.50%, which indicates that the level of agility of female students in this sample was relatively better than that of male students.

In the 600-meter running component, male students obtained an average of 50.00 with scores ranging from 28.53 to 65.38, while female students obtained a slightly higher average, namely 50.13, with scores ranging from 28.53 to 65.38. The dominant category in both groups was sufficient, namely 57.89% in males and 37.50% in females, which indicates that the cardiorespiratory endurance of phase C students is generally adequate.

Table 3 shows that the abdominal muscle strength (Move the Ball), agility (Shuttle Run), and cardiorespiratory endurance (600-meter run) components were consistently in the adequate category, in both boys and girls. Conversely, the accuracy component (Tok-Tok Ball) was the component with the lowest achievement in both groups, with almost half of the boys (47.36%) and more than a third of the girls (37.50%) in the inadequate category. The coordination component (Child Ball) also showed a pattern that needs attention in the girls' group, with 37.50% in the inadequate category. A comparison of the findings of this study with several previous studies is presented in Table 4.

Table 4. Comparison of Research Findings with Previous Studies

Researcher (Year)	Focus/Sample	Dominant Category	Consistency with These Findings
Alfian (2023)	Junior high school sports class students	Enough (son); Not enough (daughter)	Partly in line
Rahmawati & Putra (2021)	Elementary school students from various regions	Medium-low	In line
Mukholid et al. (2023)	Fifth-grade elementary school students	Varies, good-less	In line
Maulana et al. (2024)	Phase D students (junior high school)	Significant differences between genders	Not in line
Wibowo et al. (2023)	Elementary school students are high gadget users	Low	Relevant (supports interpretation)

Overall, the pattern of results across the five test components indicates that male and female students in Phase C at Dukuh II Public Elementary School have relatively similar physical fitness profiles, with a slight advantage for female students in the agility and cardiorespiratory endurance components, and a slight advantage for male students in the abdominal muscle strength component. This pattern indicates that the difference in physical fitness achievement between the two groups in Phase C is more influenced by the type of physical component measured than by gender in general.

The results of the study indicate that the physical fitness level of Phase C students at Dukuh II Public Elementary School, both boys and girls, is in the sufficient category, with the largest proportion of 47.36% in boys and 37.50% in girls, respectively. The equality of categories between the two groups indicates that the physical fitness condition of students is relatively balanced, which can be caused by the similarity of daily physical activity implementation, the implementation of the

same physical education learning program, and relatively equal opportunities to participate in sports activities in the school environment.

Several interrelated factors likely underlie this overall pattern of results. First, at the component level, the components in which students performed best, namely abdominal muscle strength, agility, and cardiorespiratory endurance, are precisely the components most directly trained through common PJOK activities and informal play (running, chasing games, ball games), whereas accuracy and coordination require more deliberate, repeated, target-oriented practice that is less commonly emphasized in general physical education sessions; this discrepancy in habitual practice offers a plausible explanation for why accuracy and coordination consistently lagged behind the other three components in both gender groups. Second, the semi-rural setting of the school, characterized by limited extracurricular sports facilities as noted in the participants' characteristics above, means that most students' physical activity outside school hours consists of unstructured play rather than structured, skill-specific training, which is likely sufficient to maintain adequate endurance and strength but insufficient to develop the fine motor precision required for high accuracy scores. Third, gender-based differences observed within individual components, such as girls outperforming boys in agility and cardiorespiratory endurance while boys showed a slight edge in abdominal muscle strength, are consistent with typical pubertal-stage differences in motor development trajectories between boys and girls during late childhood, rather than indicating a systematic disadvantage for either group. Fourth, as discussed above, part of the low accuracy scores may also be attributable to the TKSI instrument's own psychometric characteristics, since the Tok-Tok Ball item has been reported elsewhere to have comparatively lower item validity than the other four TKSI components, meaning that some of the observed variability in accuracy scores may reflect measurement sensitivity rather than skill deficits alone. Taken together, these practice-related, environmental, developmental, and measurement-related factors provide a more complete explanation for the specific pattern of strengths and weaknesses identified in this study than gender or the total fitness category alone.

Theoretically, these findings align with physical fitness theory, which explains that physical fitness reflects the body's ability to carry out daily activities effectively and efficiently without experiencing excessive fatigue (Ilyas, 2025). The physical fitness of phase C students in the sufficient category indicates that their physical capacity is basically adequate to support learning activities, but not yet optimal. This is also in line with physical activity theory, which emphasizes that the intensity, frequency, and duration of regular physical activity are the main determinants of a person's physical fitness level (Bull et al., 2020). Therefore, improving the category from sufficient to good is very possible through more structured physical activity habits.

Table 4 summarizes the position of this study's findings relative to a number of previous studies. In general, the findings are consistent with the moderate-to-moderate pattern commonly reported in similar studies, although there are some differences in the gender comparison, as further described in the following section.

These findings align with those of Alfian (2023), who found that the physical fitness levels of students in special sports classes were mostly in the adequate category, although the majority of female students in that study were in the poor category (40%)—a pattern different from the findings of this study, where female students achieved the highest proportion of the adequate category. These results also reinforce the findings of Rahmawati and Putra (2021), who showed that the majority of

elementary school students were in the moderate to low fitness category, and are consistent with those of Mukholid et al. (2023), who reported variations in physical fitness categories ranging from good to poor in fifth-grade elementary school students. In contrast to the research of Maulana et al. (2024), who found significant differences in physical fitness levels between male and female students based on the results of the TKSI phase D, this study actually showed relatively equal achievement categories between male and female students in phase C, suggesting that gender factors do not always have a consistent influence on physical fitness levels at each developmental phase.

These findings also support the research findings of Risaldi et al. (2023), who implemented the TKSI instrument at SDN Siwalan 1, Nganjuk Regency. They concluded that the TKSI can be used effectively to measure the physical fitness levels of elementary school students according to their developmental stages, although its implementation still faces obstacles such as limited facilities and teachers' understanding of the test procedures. Similar obstacles were also taken into consideration in the implementation of this study, so the assistance of physical education teachers during data collection is crucial to maintaining the objectivity of the measurement results.

The low achievement in the accuracy and coordination components aligns with the pattern found by Wibowo et al. (2023) regarding the effect of gadget use on the physical fitness levels of elementary school students, considering that high screen-based activities have the potential to reduce children's opportunities to practice motor skills such as eye-hand coordination and throwing accuracy. This condition is also relevant to the findings of Prakoso et al. (2024) regarding the relationship between screen time duration and physical activity on students' physical fitness.

These results reinforce the findings of Prastyawan and Pulungan (2022), who showed a significant relationship between physical fitness and elementary school students' academic achievement. Therefore, improving the physical fitness of Phase C students at Dukuh II Public Elementary School has the potential to support their academic achievement. Consistent with the findings of Slamet et al. (2025), student involvement in extracurricular sports activities can be a strategy to improve physical fitness from adequate to good, particularly in the accuracy and coordination components, where achievement is still relatively low. Sustainable improvement in physical fitness requires synergy between students, physical education teachers, and the school in designing targeted training programs supported by adequate facilities and infrastructure.

The practical implications of these findings underscore the importance of designing physical education (PJOK) learning programs that prioritize coordination and accuracy training, given that these two components were the lowest-performing components in this study. Activities such as throwing and catching, target games, and simple precision drills can be integrated into routine PJOK learning to hone these motor skills, in line with the Independent Curriculum's goal of developing a healthy and active Pancasila Student Profile.

More concretely, PJOK teachers at Dukuh II Public Elementary School and similar schools can translate these findings into practice in several specific ways. During the weekly PJOK session, teachers can allocate a dedicated 10–15 minute block specifically for accuracy and coordination drills, separate from the main game-based activity, so that these under-practiced skills receive deliberate attention rather than being addressed only incidentally through general games. For the accuracy component, teachers can rotate students through simple target-throwing stations, such as throwing bean bags or soft balls at hoops, boxes, or wall targets placed at varying distances, with the difficulty

progressively increased as students improve. For the coordination component, paired hand-eye coordination drills, such as wall-ball catch-and-throw sequences or simple juggling and tossing games using scarves or soft balls, can be incorporated as a regular warm-up routine. Because both components can be practiced with minimal equipment, such as tennis balls, bean bags, chalk-marked targets, or repurposed materials, these recommendations remain feasible even for schools with limited sports facilities and budgets, including Dukuh II Public Elementary School itself. Teachers are further encouraged to use the TKSI component scores as a simple diagnostic tool at the start of each semester, identifying students who fall in the "less" or "very less" categories specifically in accuracy and coordination so that these students can be given additional guided practice or paired with higher-performing peers, rather than applying a uniform training load to the whole class. Periodic re-testing using the same TKSI components at the end of the semester would then allow teachers and schools to monitor whether these targeted interventions are translating into measurable gains, providing a concrete, low-cost mechanism for evaluating the impact of PJOK instruction on students' physical fitness over time.

The availability of basic data regarding the physical fitness level of phase C students as produced by this study can be an initial reference for the education office and educational units in the Kediri Regency area in designing evidence-based policies related to improving the physical fitness of elementary school students, while also opening up opportunities for replicating similar measurements in other schools to obtain a broader picture at the district and provincial levels.

For schools with limited sports facilities and infrastructure, accuracy and coordination can be trained through simple game modifications that don't require expensive equipment, such as throwing balls at targets using recycled materials or traditional games that require precise movements. This approach aligns with the principle that improving physical fitness doesn't always depend on the availability of modern facilities, but rather on the consistency and variety of physical activity provided to students in a programmed manner.

This study has several limitations that require consideration when interpreting the results. First, the researchers could not guarantee that all students completed each test item with equal effort. Second, dietary intake before the test was not controlled, even though this could potentially impact students' physical performance. Third, other psychological and physiological factors beyond the scope of the TKSI instrument may also influence physical fitness outcomes, but were not measured in this study. These limitations should be taken into consideration for future research examining similar topics with more stringent variable controls.

For students with low levels of physical fitness, regular physical activity is recommended to improve their fitness. Schools are advised to conduct regular fitness tests to monitor student progress, while parents are encouraged to pay attention to their children's diet and quality of rest as factors supporting physical fitness.

4. CONCLUSION

Based on the results of data analysis and discussion, it can be concluded that the physical fitness level of phase C students at Dukuh II Public Elementary School, Ngadiluwih District, both in the boys' and girls' groups, is in the sufficient category. In the boy's group, the distribution of categories shows very good 5.26%, good 21.05%, sufficient 47.36%, less than 15.79%, and very less than 10.53%. In the

girls' group, the distribution of categories shows very good 0%, good 31.25%, sufficient 37.50%, less than 25%, and very less than 6.25%.

The equivalence of categories between the two groups indicates that the physical fitness condition of phase C students in this school is relatively balanced, although the accuracy (Tok-Tok Ball) and coordination (Child Ball) components are still the components with the lowest achievements in both groups. This finding answers the research hypothesis that the physical fitness level of phase C students is in the sufficient category, and emphasizes the importance of a targeted and sustainable physical activity development program, especially in the coordination and accuracy components, to improve the quality of physical fitness of elementary school students.

Further research is recommended to examine the factors that influence the physical fitness achievements of phase C students in more depth, including the influence of physical activity outside of school and nutritional consumption patterns, to complement the descriptive findings produced by this study.

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