

Implementation of Archery Class Management at the Pre-Extracurricular Program Stage To Improve Archery Skills of Elementary School Students

Implementación de la gestión de clases de tiro con arco en la etapa del programa preextracurricular para mejorar las habilidades de tiro con arco de los estudiantes de primaria

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Abstract. Currently, archery is a sport that is growing in popularity in society. However, most elementary schools (ES) in Yogyakarta, Indonesia, do not yet organize archery extracurricular activities. This is due to the lack of human resources related to archery sports skills. Apart from that, it is also due to limited facilities and infrastructure. This research is quantitative with a one-group pretest-posttest pre-experimental design. The research was conducted at Muhammadiyah Jogokaryan ES with subjects aged 10-12 who participated in the pre-archery extracurricular program. The sample was taken using a simple random sampling method in classes IV-VI, totaling 15 students. The technique for collecting data on archery skills was carried out by giving archery tests at a distance of 5 meters in 12 sessions/rounds by shooting at 6 children. The results of the paired t-test sig value. $0.001 < 0.05$ means there is a difference between the pre-test and post-test. The pre-test score was 59.53, and the post-test was 78.13, meaning there was a descriptive improvement. The n-gain effectiveness test result is 0.43, which is in the medium category. Findings from observations by researchers in the field also found that effectiveness was medium-level due to limited equipment and facilities for archery extracurricular activities. The conclusions are: (1) The implementation of archery class management at the pre-extracurricular program stage has a significant effect in improving ES students' archery skills; (2) The implementation of archery class management at the pre-extracurricular program stage in well-managed archery teaching has been proven to be effective in improving archery skills but only falls into the moderate effectiveness category, due to limited equipment and facilities for archery extracurricular activities; (3) Management of archery sports classes at the pre-extracurricular program stage requires planning, organizing, implementation/instruction and evaluation/assessment steps; (4) Support for equipment and facilities is needed for archery extracurricular activities at ES. This is to provide maximum archery skill achievement for ES students aged 10-12 years and as an encouragement for cultivating archery athletes in the city of Yogyakarta, Indonesia.

Keywords: Class management, Pre extracurricular program, Archery achievement, Students

Resumen. Abstracto. Actualmente, el tiro con arco es un deporte que está ganando popularidad en la sociedad. Sin embargo, la mayoría de las escuelas primarias (ES) de Yogyakarta, Indonesia, aún no organizan actividades extracurriculares de tiro con arco. Esto se debe a la falta de recursos humanos relacionados con las habilidades deportivas de tiro con arco. Aparte de eso, también se debe a las instalaciones e infraestructura limitadas. Esta investigación es cuantitativa con un diseño preexperimental pretest-postest de un solo grupo. La investigación se llevó a cabo en la escuela primaria Muhammadiyah Jogokaryan con sujetos de entre 10 y 12 años que participaron en el programa extracurricular previo al tiro con arco. La muestra se tomó mediante el método de muestreo aleatorio simple en los grados IV-VI, totalizando 15 estudiantes. La técnica de recogida de datos sobre las habilidades de tiro con arco se llevó a cabo realizando pruebas de tiro con arco a una distancia de 5 metros en 12 sesiones/rondas disparando a 6 niños. Los resultados del valor sig de la prueba t pareada. $0,001 < 0,05$ significa que hay una diferencia entre la prueba previa y la prueba posterior. La puntuación del pretest fue de 59,53 y del postest de 78,13, lo que significa que hubo una mejora descriptiva. El resultado de la prueba de efectividad de n-gain es 0,43, que se encuentra en la categoría media. Los hallazgos de las observaciones realizadas por investigadores en el campo también encontraron que la efectividad fue de nivel medio debido al equipo e instalaciones limitados para las actividades extracurriculares de tiro con arco. Las conclusiones son: (1) La implementación de la gestión de clases de tiro con arco en la etapa del programa preextracurricular tiene un efecto significativo en la mejora de las habilidades de tiro con arco de los estudiantes de ES; (2) Se ha demostrado que la implementación de la gestión de clases de tiro con arco en la etapa del programa preextracurricular en una enseñanza de tiro con arco bien administrada es efectiva para mejorar las habilidades de tiro con arco, pero solo cae en la categoría de efectividad moderada, debido al equipo e instalaciones limitados para el tiro con arco extracurricular. actividades; (3) La gestión de las clases de deportes de tiro con arco en la etapa del programa preextracurricular requiere pasos de planificación, organización, implementación/instrucción y evaluación/valoración; (4) Se necesita apoyo para equipos e instalaciones para las actividades extracurriculares de tiro con arco en ES. Esto tiene como objetivo proporcionar el máximo rendimiento en habilidades de tiro con arco a los estudiantes de ES de 10 a 12 años y como estímulo para cultivar atletas de tiro con arco en la ciudad de Yogyakarta, Indonesia.

Palabras clave: Gestión de clases, Programa pre extracurricular, Rendimiento en tiro con arco, Estudiantes.

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Introduction

Schools can be used as a forum to support educational goals achievement. Achieving educational goals cannot be separated from the influence of the educational curriculum on extracurricular activities. Therefore, curriculum implementation and development can be done by implementing and developing various extracurricular activities that encourage student achievement or skills in various fields. In the National Education System Law no. 20 of 2003, Article 3 states that national education functions to develop and shape the character and civilization of a dignified nation in order to educate the nation's life, aiming to develop the potential of students to become human beings who believe in and are devoted to God Almighty, have noble character and knowledge, capable, creative, independent, and become democratic and responsible citizens.

Extracurricular activities at school are one way to accommodate and develop students' potential while at school. Implementing extracurricular activities in schools is part of education per the Education and Culture Regulations of the Republic of Indonesia Number 62 of 2014 concerning Extracurricular Activities in Primary Education and Secondary Education. The regulations state that extracurricular activities are outside curricular activity hours. Curricular activities in the teaching and learning process in class can take the form of subject areas of study at school. Meanwhile, extracurricular activities are a place for student activities outside curricular activities. This extracurricular activity can be carried out at every school institution from kindergarten to high school level according to the needs and potential that you want to develop.

Extracurricular activities are usually carried out outside regular class hours to broaden knowledge, attitudes and skills in various fields, namely sports, science, social sciences, religion and the arts. One of the extracurricular activities that can be carried out is extracurricular archery. Currently, archery is a sport that is growing in popularity in society. Archery has many benefits that are needed at the stage of growth and development of students at school. Archery activities will have a positive impact on increasing concentration and stability of visual balance (Gündüz et al., 2017); (Ustun & Tasgin, 2020); (Wada & Takeda, 2020). Physical learning activities at school can provide a healthy lifestyle (Susanto et al., 2023). Apart from that, learning provides a more interactive and interesting learning experience (Matitaputty et al., 2024). (Khoeriyah, 2020) his research stated that the character values of the archery activity program were a disciplined character, hard-working character, independent character, respectful character, and friendly/communicative character. Archery sports activities can also be packaged in games, individual activities, groups and other physical activities that can develop cognitive, affective and psychomotor aspects in regular or extracurricular PE learning at school. However, most elementary schools (ES) in Yogyakarta do not yet organize archery extracurricular activities. This is due to the lack of human

resources in schools who master and understand archery skills. It is also due to limited facilities and infrastructure in elementary schools (ES).

The implementation of extracurricular sports activities in schools must also be packaged using management functions so that they run well. According to Terry (1997), management functions include planning, organizing, actuating and controlling (POAC). The monitoring or controlling stage is included in the learning evaluation process. The evaluation process is an assessment activity carried out by educators to determine student development to align with the goals to be achieved. This evaluation activity aims to obtain a value or certainty regarding learning success during the learning process taught by the teacher previously. Thus, implementing management functions becomes an important aspect that will be studied and applied in the implementation of archery class management at the pre-extracurricular program stage in elementary schools. Effective management of sports classes will be created by implementing management functions starting from planning, organizing, implementing/instructing and evaluating. Teachers must carry out learning management activities so that learning runs well in the classroom, including management of learning places, learning materials, activities and time, student management, learning resources, and teaching behavior (Rukajat, 2018). However, the implementation of archery learning and its various benefits will not be achieved if there is no support from the capacity of a teacher or coach skilled at playing the role of a manager and leader. In this case, in particular, the management of archery sports classes in extracurricular programs in elementary schools (ES)

Muhammadiyah Jogokaryan Elementary School (ES) Yogyakarta City is a school that tries to improve the quality of its students. This school tries to accommodate all the needs of its students to hone each student's skills and abilities. Thus, Muhammadiyah Jogokaryan Elementary School (ES) in Yogyakarta City is a forum for developing the potential of its students by improving the quality of education from an academic and non-academic perspective. Judging from academics, the school always improves the quality of education and the learning process. From a non-academic perspective, it is improving the process of extracurricular activities. One of the extracurricular activities that can be developed at the Yogyakarta City Muhammadiyah Jogokaryan Elementary School is archery, so it is necessary to implement archery class management at the pre-extracurricular program stage. This is done to foster interest and talent or achievement in archery and to carry out extracurricular activities as expected.

Based on several problems raised, planning, organizing, implementing and evaluating archery sports classes within the framework of extracurricular activities in elementary schools (ES) is necessary. There have been several previous studies that examined learning models and management, including the research conducted (Mumpuni & Ismanto, 2019); (Kulsum, 2019); (Musadad, 2015); (Maria & Sediyo, 2017); (Suprpto, 2019); (Suhairi & Santi,

2021); (Saputro, 2020); (Syafaruddin et al., 2020); (Nashihah, 2020); and (Khoeriyah, 2020). Apart from that, there are several previous studies that discuss the sport of archery, including: (Barrera et al., 2020); (Roldan et al., 2021); (Setyawan et al., 2023); (Setyawan et al., 2023); (Wibowo et al., 2024); (Setyawan et al., 2024); (Yachsie et al., 2024). However, this research has not studied the implementation of archery class management at the pre-extracurricular program stage to improve Elementary School (ES) students' skills. Therefore, it is necessary to conduct research on the implementation of archery class management at the pre-extracurricular program stage to improve the skills of Elementary School (ES) students.

Methods

This research is quantitative research with a one-group pretest-posttest pre-experimental design. The research was carried out at the Muhammadiyah Jogokaryan Elementary School (ES) Yogyakarta City with subjects aged 10-12 years who participated in a pre-curricular archery sports program. The research sample was taken using a simple random sampling method in classes IV-VI, totaling 15 students. The technique for collecting interest data is by giving a questionnaire before and after implementing the archery extracurricular pre-program. Data collection techniques for archery skills were carried out before and after implementing the pre-archery extracurricular program.

Implementation of the effectiveness of archery sports class management at the pre-extracurricular program stage on students' archery skills also involves four aspects of management functions including 1) archery sports class planning at the pre-extracurricular program stage, 2) organizing archery sports classes at the pre-extracurricular program stage 3) class implementation archery sports at the pre-extracurricular program stage, and 4) evaluation/assessment of the archery sports class at the pre-extracurricular program stage. The implementation/implementation part is carried out in several steps. In the archery extracurricular pre-program implementation activity, students practice archery at a distance of 4-8 meters by shooting 6 arrows in each session, carried out in 12 sessions. The procedure for carrying out archery training is carried out with the following explanation:

1. Students stand on the shooting line to shoot 6 arrows each session. In this arrow shooting activity/exercise, the student's gaze must focus or concentrate on the shooting target.
2. After the student has finished shooting the arrow, the designated referee and the student calculate their respective scores.
3. Scoredetermined based on the results of arrows shot that stick into the target's face object with a yellow score of 10 - 9, red 8 - 7, and blue 6 - 5.
4. After everything is finished, the scores obtained are added and converted into a numerical value on a scale of 1-100.

The data analysis technique is a paired sample t-test and n-gain score analysis. The first data analysis technique uses paired sample t-test analysis with the SPSS program to determine the implementation of archery class management at the pre-extracurricular program stage on students' archery skills. Analysis of the paired sample t-test with the SPSS program at this stage can be described (Table 1) below:

Table 1. Pre-experimental designs (one-group pretest-posttest design)

| Pre-test | Treatment | Post-test |
|----------|-----------|-----------|
| O1 | X | O2 |

Information:

O1 : ResultsPretest

X : Application of Archery Class Management at the Pre-Extracurricular Program Stage

O2 : ResultsPosttest.

The data analysis technique second uses N-gain Score Test analysis to determine the effectiveness implementation of archery class management at the pre-extracurricular program stage on students' archery skills. Analysis of the N-gain Score Test at this stage uses the following formula:

$$g = \frac{Sf - Si}{Smax - Si}$$

Information

g = gain

Sf = Post-test average value

Si = Average pre-test score

Smax= Maximum value

The effectiveness level criteria use criteria according to(Hake, 1998) as shown in (Table 2) below:

Table 2. Effectiveness Criteria

| Value g | Criteria |
|--------------------|-----------|
| $G \geq 0.7$ | Tall |
| $0.3 \leq G < 0.7$ | Currently |
| $G < 0.3$ | Low |

Results

The following is a presentation of a descriptive quantitative analysis of students' archery skills pre-test and post-test scores. Results of descriptive statistical analysis of values *pre-test* and post-test scores are shown in (Table 3) below.

Table 3. Descriptive Statistics

| | Descriptive Statistics | | | | | | |
|---------------------|------------------------|-----|-----|------|-------|-----------|----------|
| | N | Min | Max | Sum | Mean | Std. Dev. | Variance |
| Pre-test Experiment | 15 | 25 | 86 | 893 | 59.53 | 21,243 | 451,267 |
| Posttest Experiment | 15 | 47 | 100 | 1172 | 78.13 | 15,352 | 235,695 |
| Valid N (listwise) | 15 | | | | | | |

If there is quantitative research with parametric statistical analysis of paired sample T-tests, the data must first meet the normality test requirements before testing analysis using SPSS. The normality test can be carried out using Kolmogorov-Smirnov or Shapiro-Wilk. Kolmogorov-Smirnov is used for large samples (>50), while Shapiro-Wilk is used for small samples (<50). Normality test results as shown in (Table 4) It is known that the output test of normality value for all experimental pre-test and post-test data in the Shapiro-Wilk test has a value (sig.) > 0.05, so the data is normally distributed.

Test results of paired sample t-test The implementation of archery class management at the pre-extracurricular program stage, as shown in (Table 5) has a known output paired samples test value obtained. Amounting $0.001 < 0.05$, it can be concluded that there is a difference in the average student archery shooting learning outcomes between the

pre-test and post-test after being given the implementation of archery class management at the pre-extracurricular program stage.

Table 4. Tests of Normality

| Class | Tests of Normality | | | | | | |
|---------------------------------------------------------|---------------------|------|------|--------------|------|------|------|
| | Kolmogorov-Smirnova | | | Shapiro-Wilk | | | |
| | Statistic | df | Sig. | Statistic | df | Sig. | |
| Results (Archery Skills in Pre-Extracurricular Program) | Pre-test Experiment | .221 | 15 | .047 | .886 | 15 | .058 |
| | Posttest Experiment | .131 | 15 | .200* | .942 | 15 | .404 |

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 5. Paired Samples Test

| Paired Samples Test | | Paired Differences | | | | | | t | df | Sig. |
|---------------------|------------------------------------------------------------------------------|--------------------|-----------|-----------------|-------------------------------------------|--------|--------|----|------|------|
| | | Mean | Std. Dev. | Std. Error Mean | 95% Confidence Interval of the Difference | | | | | |
| | | | | | Lower | Upper | | | | |
| Pair 1 | Archery Skills Experimental Pre-test - Archery Skills Experimental Post-test | -18,600 | 16,574 | 4,279 | -27,778 | -9,422 | -4,347 | 14 | .001 | |

Based on the output of paired samples statistics as shown in (Table 6), it is known that the pre-test value is 59.53 while the post-test is 78.13, so there is a descriptive increase from the pre-test value to the post-test value. Thus,

it can be concluded that implementing archery class management at the pre-extracurricular program stage can descriptively improve students' archery skills.

Table 6. Paired Samples Statistics

| Paired Samples Statistics | | Mean | N | Std. Dev. | Std. Error Mean |
|---------------------------|-------------------------------------------------------------------------|-------|----|-----------|-----------------|
| Pair 1 | Archery Skills Experimental Pre-test in the Pre-Extracurricular Program | 59.53 | 15 | 21,243 | 5,485 |
| | Post-test Experiment on Archery Skills in Pre-Extracurricular Programs | 78.13 | 15 | 15,352 | 3,964 |

Effectiveness implementation of archery class management at the pre-extracurricular program stage can be found using n-gain score test analysis. The n-gain score test analysis is designed to determine the effectiveness of applying a particular model or method to the results. Based on the results of the n-gain score test calculation, as shown in (Table

7), it is known that the average N-gain score is 0.43, so it is included in the medium category. The minimum N-gain value is -0.67, and the maximum is 1.00. Thus, the medium effectiveness category includes the N-gain value of implementing archery class management at the pre-extracurricular program stage.

Table 7. N-Gain Score Test Results

| No | Student's name | Pre-test | Conversion | INTERVENTIONS 1-12 | | | | | | | | | | | | Post-test | Conversion | N-Gain |
|----|----------------|----------|------------|---------------------------------------------------------|----|----|----|----|----|----|----|----|----|----|----|-----------|------------|--------|
| | | | | Practice Archery Techniques and Results in Each Session | | | | | | | | | | | | | | |
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | |
| 1 | MNH. | 28 | 49 | 46 | 40 | 48 | 47 | 49 | 32 | 51 | 50 | 42 | 53 | 53 | 57 | 55 | 96 | 0.93 |
| 2 | RAF | 49 | 86 | 47 | 45 | 41 | 49 | 49 | 52 | 47 | 48 | 55 | 46 | 46 | 55 | 51 | 89 | 0.25 |
| 3 | LAP | 24 | 42 | 48 | 43 | 29 | 34 | 36 | 45 | 47 | 44 | 36 | 28 | 29 | 36 | 44 | 77 | 0.61 |
| 4 | RSNS | 48 | 84 | 48 | 45 | 53 | 46 | 57 | 51 | 57 | 50 | 53 | 57 | 53 | 49 | 57 | 100 | 1.00 |
| 5 | ASPE | 19 | 33 | 25 | 16 | 37 | 35 | 37 | 35 | 48 | 28 | 36 | 48 | 40 | 35 | 38 | 67 | 0.50 |
| 6 | ACN | 14 | 25 | 32 | 43 | 43 | 40 | 50 | 44 | 55 | 38 | 46 | 52 | 41 | 45 | 36 | 63 | 0.51 |
| 7 | RY | 30 | 53 | 32 | 26 | 13 | 36 | 23 | 18 | 47 | 46 | 41 | 42 | 34 | 22 | 27 | 47 | -0.11 |
| 8 | DANZ | 22 | 39 | 23 | 40 | 27 | 23 | 28 | 33 | 51 | 55 | 49 | 31 | 40 | 23 | 38 | 67 | 0.46 |
| 9 | IP | 48 | 84 | 37 | 37 | 26 | 43 | 41 | 50 | 39 | 40 | 43 | 32 | 39 | 38 | 42 | 74 | -0.67 |
| 10 | MHN | 49 | 86 | 49 | 47 | 55 | 55 | 46 | 51 | 40 | 37 | 48 | 58 | 58 | 57 | 54 | 95 | 0.62 |
| 11 | ARF | 43 | 75 | 56 | 47 | 54 | 55 | 49 | 57 | 54 | 55 | 52 | 53 | 51 | 54 | 56 | 98 | 0.93 |
| 12 | IGN | 47 | 82 | 39 | 49 | 47 | 51 | 49 | 49 | 46 | 52 | 50 | 56 | 50 | 46 | 49 | 86 | 0.20 |
| 13 | GP | 30 | 53 | 52 | 53 | 52 | 53 | 49 | 47 | 38 | 47 | 43 | 46 | 36 | 39 | 39 | 68 | 0.33 |

| | | | | | | | | | | | | | | | | | | |
|----------------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| 14 | AAJ | 28 | 49 | 40 | 40 | 47 | 35 | 37 | 38 | 50 | 45 | 39 | 30 | 38 | 47 | 43 | 75 | 0.52 |
| 15 | DTHA | 30 | 53 | 38 | 44 | 49 | 44 | 42 | 53 | 50 | 39 | 27 | 41 | 37 | 34 | 40 | 70 | 0.37 |
| Average N-Gain | | | | | | | | | | | | | | | | | | 0.43 |
| Minimum N-Gain | | | | | | | | | | | | | | | | | | -0.67 |
| Maximum N-Gain | | | | | | | | | | | | | | | | | | 1.00 |

Discussion

Based on the results of the paired samples test, the value (Sig.) of 0.001 is smaller than 0.05, so there is a significant difference in the average student archery shooting learning outcomes between the pre-test and post-test after being given the implementation of archery class management at the pre-extracurricular program stage. Apart from that, based on the output of paired samples statistics, it is known that the pre-test value is 59.53 while the post-test is 78.13, so there is a descriptive increase from the pre-test value to the post-test value. These results show that implementing archery class management at the pre-extracurricular program stage can improve archery skills learning outcomes for elementary school students aged 10-12 years. This is also supported by several previous studies regarding efforts to use an appropriate teaching method or technique and its effect on achieving maximum learning outcomes. RN Sari Research (2022) One of the efforts to implement classroom management to increase learning effectiveness is using a method. Nugraha (2018) The classroom strategy that needs to be implemented is to condition students to be ready to learn in class, learn to concentrate, and use appropriate and varied methods. Studies by (Faqiha & Pratama 2022); (Rahmatica, 2022); (Ardiyanto 2022) concluded that there is an influence of the application of a method or technique in archery on the results of archery accuracy. Implementing archery class management at the pre-extracurricular program stage will assist students in carrying out various basic archery technical movements with the guidance of teachers or extracurricular sports program coaches.

Many factors can influence archery performance in terms of training management or teaching, application of methods, technical training, physical, tactical and mental. Several studies have been conducted to provide solutions and contributions theoretically and practically regarding this matter. It is also necessary to use video and multimedia technology in training archery athletes to improve the skills of coaches and athletes, as well as facilitate understanding of all aspects of training implementation (Vlasov et al., 2017). Study (Akbar & Nurhayati, 2019) there is a contribution of kinesthetic perception to archery ability. Implementing a fun game (AVShoot) can improve accuracy in novice archers (Fierera, 2022). The self-check style technique improves aiming techniques in archery sports (Arisman et al., 2021). Artificial Intelligence (AI) has proven effective in classifying and predicting talent scouting for outstanding archery athletes (Musa et al., 2019). The Weighted Product (WP) method has a high percentage of success in supporting the talent selection system for archery athletes (Utomo et al., 2019). Apart from that, in order for the use of archery sports methods or techniques to run well, good classroom management (theory and practice) is also

needed. Rohiyatun & Mulyani (2017) there is a relationship between classroom management procedures and the smoothness of the teaching and learning process. Classroom management activities are intended to create and maintain an effective and efficient classroom atmosphere and conditions (Wahid et al., 2018). The class manager has a major role in creating an effective class (Hidayat et al., 2020). Thus, it can be concluded that the implementation of archery class management at the pre-extracurricular program stage can improve the archery skills learning outcomes of beginner students

Based on the results of the effectiveness level test using n-gain score analysis, it is known that the average n-gain score is 0.43, which is in the medium category. The minimum n-gain value is -0.67, and the highest is 1.00. Thus, the n-gain score effectiveness value is the implementation of archery class management at the pre-extracurricular program stage included in the moderate effectiveness category. Previous research has stated that there is an influence of the application of a method or technique in archery on archery accuracy results (Faqiha & Pratama, 2022); (Rahmatica, 2022); and (Ardiyanto, 2022). However, the implementation of archery class management at the pre-extracurricular program stage that has been carried out is only in the medium-level category. However, the quantitative results of implementing archery class management at the pre-extracurricular program stage have increased the archery skill scores of elementary school (ES) students aged 10-12 years. The findings from observations by researchers in the field have also provided a conclusive answer that the results of the effectiveness of the medium level category are influenced by limited equipment and facilities for archery extracurricular activities at SD Muhammadiyah Jogokaryan. This provides an understanding that teaching archery in extracurricular programs using stages of management functions for elementary school (ES) students in grades 10-12 has proven effective in improving students' archery skills, but only falls into the moderate effectiveness category.

Conclusion

Based on the results of research data analysis and discussion, the following conclusions were obtained: (1) The implementation of archery class management at the pre-extracurricular program stage has a significant effect in improving elementary school students' archery skills; (2) The implementation of archery class management at the pre-extracurricular program stage in well-managed archery teaching has been proven to be effective in improving archery skills but only falls into the moderate effectiveness category, due to limited equipment and facilities for archery extracurricular activities; (3) Management of archery sports classes at the pre-extracurricular program stage requires planning,

organizing, implementation/instruction and evaluation/assessment steps; (4) Support for equipment and facilities is needed for archery extracurricular activities at elementary schools (ES). This is to provide maximum archery skill achievement for elementary school (ES) students aged 10-12 years and as an encouragement for cultivating archery athletes in the city of Yogyakarta, Indonesia.

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Conflicts of interest

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