

# Curriculum Effectiveness of Unimed Archery Arrangement Training Center

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## ABSTRACT

Archery is a sport that requires special skills, both accuracy, coordination and mental and improve body physically. With the archery curriculum implemented at the Unimed archery training and training center, it is expected to produce reliable athletes from North Sumatra. Therefore, the planning, maturation and quality control program of Unimed archery training and training center is highly prioritized, because with the maturity of the curriculum, it will be able to anticipate coaching and training problems that crave the best solutions in the face of competition for achievement.

Based on the results, it can be explained the average archery results of the Junior Athlete Training and Training Center for Archery Unimed pre test value 132.8 and the average post test value of 257.15. The results showed an increase in the results of the Archery Junior Training Center and Archery Training Unimed after being given a curriculum. The process of practicing in a programmatic, planned, repetitive and progressively increasing burden and being evaluated properly will affect an athlete's abilities.

**Keywords:** [Archery Training, Training Curriculum]

## INTRODUCTION

Archery is a sport that requires special skills, both accuracy, coordination and mental and improve body physically. This is in line with the opinion of Leroyer et al (1993) which states that the skill in archery is defined as the ability to shoot arrows at a given target within a certain time span and accuracy, in line with that, according to Nishizone et al, (1987: 364), for Getting a good record in archery competition required a good balance and shooting ability during the archery process. There are 6 stages of movement in archery techniques (Nishizone et al, 1987), namely Archery Preparation, Pulling a bowstring, full draw, aiming, releasing a rope and advanced movements, while Pekalski (1990) distinguishes archery techniques

from interactions between arrows and archers.

To be able to excel in the archery branch of an athlete is required to have some basic capital, including anthropometry, physical abilities, tactics, and good mental. The sport of archery is also influenced by other supporters which are related to the equipment used. Because in the sport of archery the selection of bow and arrow according to the effect on the level of achievement achieved by an archer. For example for a short arm pull, the arrows used will also be short and use a short-sized bow as well so that there is a match between the length of the pull with the bow used. And the suitability of the type or series of arrows with the weight of the bow.

The success of an athlete is influenced by a number of factors that

support one another. These factors come from inside and outside the athlete itself which includes physical, psychological, technical, tactics, coach, training facilities, infrastructure, social, and so on. Alderman in Sudibyo Setyobroto (1993: 16) states that an athlete's appearance can be viewed from three dimensions, namely: 1. Dimensions of physical fitness include endurance, explosive strength, speed, flexibility, agility, reaction, balance, accuracy, and so on. 2. The dimensions of skills include: kinesthetic, specific sports skills, motion coordination, and so on. 3. Dimensions of physical traits include: physical condition, height, weight, body shape, and so on.

In addition to the three dimensions, coaching and nursery are factors that greatly affect the success of an athlete. With good and tiered coaching, achievements will be easily achieved. But on the contrary, achievements will be very difficult to achieve if the coaching and nursery athletes are not done well.

Unimed is one of the State Universities in North Sumatra that began conducting archery training by establishing an Archery Training and Training Center. Unimed as a center for archery training and training has several advantages, namely: (a) having a strategic location (b) available archery arenas and standards where national archery competitions have been held at Unimed (c) The availability of human resources both sports experts and athletes who are ready to be coached and trained are Unimed students, (d) Unimed has supporting facilities as a center for training and archery training such as a complete physical lab and digital physical test instruments.

In addition to complete infrastructure facilities the training center and archery training Unimed has a curriculum in its guidance. With the archery curriculum implemented at the Unimed archery training and training center, it is expected to produce reliable athletes from North Sumatra. Therefore, the planning,

maturation and quality control program of Unimed archery training and training center is highly prioritized, because with the maturity of the curriculum, it will be able to anticipate coaching and training problems that crave the best solutions in the face of competition for achievement.

## **MATERIALS & METHODS**

This research is an experimental study with One Group Pre and Post Test Design. In this design, the experimental unit is subject to treatment with two measurements. The first measurement is done before the treatment is given, and the second measurement is done after the treatment is carried out, (Moh. Nazir, 2003). The sampling technique in this study was purposive sampling. The sample used in this study is junior athletes who are members of the Unimed Archery Training and Coaching Center, amounting to 20 people. Data collection method used in this study is an experimental method which is one step in research, because it will relate to the data obtained during the study. Data analysis techniques in this study used the t-test (t-test). To measure the presence and absence of the ability of the object under study, used the instrument, which is in the form of a test. This test can be used to measure basic abilities and achievement, usually this test is carried out before, during and after running an exercise program to find out how much improvement during running the exercise program. The test used is the basic archery technique (archery stages) and the archery test a distance of 10 meters.

## **RESULT**

This study aims to determine the effectiveness or influence of the Unimed Archery Training and Training Center Curriculum (X) on Improving Archery Basic Techniques (Y1) and Archery Results (Y2) Junior Athletes Training Center and Unimed Archery Training.

**a. Basic Archery Techniques**

The results of the pre-test analysis of basic archery technique variables obtained the highest score of 130, the lowest score of 101, the average score of 119.1, the standard deviation of 8.55, the median of 121, mode 124. Many class intervals are 6 and the length of the class interval is 5. Frequency distribution of the data can be seen in table 1.

**Table 1: Frequency Distribution of Pre Test Scores for Basic Archery Techniques Junior Athletes Training Center and Unimed Archery Training.**

Interval	Absolute Frequency (f)	Relative Frequency (%)
101 - 105	3	15
106 - 110	1	5
111 - 115	1	5
116 - 120	5	25
121 - 125	6	30
126 - 130	4	20
Total	20	100

The results of the post test analysis of the basic archery technique variables obtained the highest score of 142, the lowest score of 122, the average score of 133.55, the standard deviation of 5.86, the median of 135, mode 137. Many class intervals are 6 and the length of the class interval is 4. Frequency distribution of the data can be seen in table 2.

**Table 2: Post Test Frequency Distribution Scores of Basic Archery Techniques Junior Athletes Training Center and Unimed Archery Training.**

Interval	Absolute Frequency (f)	Relative Frequency (%)
122 - 125	2	10
126 - 129	3	15
130 - 133	4	20
134 - 137	7	35
138 - 141	2	10
142 - 145	2	10
Total	20	100

**b. Archery Results**

The results of the pre-test analysis of the archery results obtained the highest score of 265, the lowest score of 37, the average score of 132.8, the standard deviation of 61.31, the median of 139, the mode of 139. Many class intervals are 6 and the length of the interval class is 38. Frequency distribution from data these can be seen in table 3.

**Table 3: Distribution of Pre Test Frequency Score for Archery Results of Junior Athletes Training Center and Unimed Archery.**

Interval	Absolute Frequency (f)	Relative Frequency (%)
37 - 75	3	15
76 - 114	6	30
115 - 153	2	10
154 - 192	7	35
193 - 231	1	5
232 - 270	1	5
Total	20	100

The results of the post test analysis of archery results obtained the highest score of 315, the lowest score of 195, the average score of 257.15, the standard deviation 32.66, the median 255, mode 252. Many class intervals are 6 and the length of the class interval is 20. Frequency distribution of data these can be seen in table 4.

**Table 4: Post Test Frequency Distribution Scores on Archery Results of Junior Athletes Training Center and Unimed Archery Training.**

Interval	Absolute Frequency (f)	Relative Frequency (%)
195 - 215	2	10
216 - 236	3	15
237 - 257	5	25
258 - 278	5	25
279 - 299	3	15
300 - 320	2	10
Total	20	100

**HYPOTHESIS TESTING**

a. The Influence of the Unimed Archery Training Center and (X) Curriculum on Improving Archery Basic Techniques (Y1) Junior Athletes Unimed Archery Training and Coaching Center

The results show that the first hypothesis in this study which states that there is an influence of the Unimed Archery Training and Training Center Curriculum on Improving Basic Archery Techniques for Junior Athletes Training Center and Unimed Archery Training is accepted by the results of empirical research. This is evidenced by the significance value of the paired t test in archery basic techniques before and after getting the Unimed Archery Training and Training Center curriculum, the t-count criteria (in T-Test as P\_value) = 13.26 is greater than the t-table = 2.09. Based on H1 accept testing criteria if the t-count is greater than the t-table, there is the influence of the Unimed Archery Training and Training Center Curriculum on Basic

Archery Techniques for Junior Athletes, the Unimed Archery Training and Training Center.

Based on the results, it can be explained the average basic techniques of archery Junior Athlete Training Center and Archery Training Unimed pre test value 119.1 and post test average value 133.6. The

results showed an increase in the ability of basic techniques in archery Junior Athletes Training Center and Archery Training Unimed after being given a curriculum. The process of practicing in a programmatic, planned, repetitive and progressively increasing burden and being evaluated properly will affect an athlete's abilities.

**Table 5: T-Test for X-Y1 Regression**

Paired Samples Test		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	99% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre_basic post_basic	-14.45000	4.87178	1.08936	-17.56659	-11.33341	-13.265	19	.000

**Table 6: F\_value for X-Y1 Regression**

post_basic					
	Sum of Squares	df	Mean Square	F_value	Sig.
Between Groups	603.117	13	46.394	5.586	.022
Within Groups	49.833	6	8.306		
Total	652.950	19			

b. The Influence of the Unimed Archery Training and Coaching Curriculum Center (X) on Archery Outcomes (Y2) Junior Athlete Training Center for Unimed Archery Training and Coaching

The results show that the second hypothesis in this study which states that there is an influence of the Unimed Archery Training and Coaching Curriculum Center on Archery Results (Y2) Junior Athlete Training Center and Unimed Archery Training is accepted by the results of empirical research. This is evidenced by the significance value of the paired t test on archery results before and after getting the Unimed Archery Training and Training Center curriculum, the t-count criterion(in T-Test as P\_value) = 13.098 is greater than the t-table = 2.09. Based on H1 accept

testing criteria if the t-count is greater than the t-table, there is the influence of the Unimed Archery Training and Training Curriculum Center on the Junior Archery Outcomes of the Unimed Archery Training and Training Center.

Based on the results, it can be explained the average archery results of the Junior Athlete Training and Training Center for Archery Unimed pre test value 132.8 and the average post test value of 257.15. The results showed an increase in the results of the Archery Junior Training Center and Archery Training Unimed after being given a curriculum. The process of practicing in a programmatic, planned, repetitive and progressively increasing burden and being evaluated properly will affect an athlete's abilities.

**Table 7: T-Test for X-Y2 Regression**

Paired Samples Test		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	99% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre_hasil post_hasil	-124.35000	42.45775	9.49384	-151.51126	-97.18874	-13.098	19	.000

**Table 8: F\_value for X-Y2 Regression**

Archery outcomes					
	Sum of Squares	df	Mean Square	F_value	Sig.
Between Groups	20246.550	18	1124.808	62.489	.099
Within Groups	18.000	1	18.000		
Total	20264.550	19			

## CONCLUSION

Based on the results of research and hypothesis testing it can be concluded that:

1. There is an influence of the Unimed Archery Training and Training Center Curriculum on improving basic archery techniques of junior athletes at the Unimed Archery Training and Training Center.
2. There is an influence of the Unimed Archery Training and Training Center Curriculum on the results of the archery of junior athletes at the Unimed Archery Training and Coaching Center.

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