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The Effect of Anthropometry Factors, Biomotor Ability, Rowing Size and Balance of the Skills 200m Kayak Athletes National Training Camp 2015

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Abstract: ***The purpose of this study was to determine the effect of anthropometric components, ability bio-motor, rowing dimensions and balance kayak athlete of kayak national training camp in 2015. This study was conducted by survey method with a view of causality between variables. Technique of data analysis by using path analysis (path analysis) .Path analysis technique can be used to the test direct and indirect effect on anthropometric factors, Motor ability, dynamic balance, paddle size and skills of 28 athletes of kayak national training camp in 2015.***

Keywords: Anthropometry, Motor Ability, Rowing Dimension, Balance

1. Introduction

Rowing sports achievement is not only determined by to promote and a good breeding, but at the level of elite athletes to be able to compete with other countries that require technological approaches for achieve in the sport of rowing. Body posture is congenital factor or heredity factor and nutritional factors are difficult to be changed by a certain treatment, so it can to increase the height significantly. Athletes world class like EirikVeras Larsen from the Norwegian Olympic champion in 2004 and 2012, who has a height of 189 cm or Adam Van Coeverden from Canadian Olympic champion in 2008 and 2012 who has a height of 182 cm. Based on the data above its clear that champions above have a height above average. But a champion for a number kayak 200m Ed Mcever from British world champion and Beijing Olympics in 2012, he is only has a height 173 cm, the average posture is owned by the national kayak rowers. From the several factors that influence achievement rowing sports kayak numbers as described in the section above, the researcher interested to do the research to find out the effect of technical factors such as anthropometric factors, the ability biomotor, rowing dimensions, the skill level kayak rowing sport athletes, especially in range 200m Rowing National Team in 2015.

2. Theoretical Framework

Skills athlete of Rower Kayak In Range 200 M

Generally sports or techniques in sport has a goal to be achieved the target of skills. Sport biomechanics divide all goals sports skills, it called as The Primary Mechanical Purpose of Skill.

1. Anthropometry athlete of rower Kayak

An Experts of anthropometry since 1986 established a community of experts anthropometry namely ISAK (*International Society of Advancement Kinanthropometry*) which purpose is to equalize the standard examination structure and the function of human body, which published in the book of *Kinanthropometry and Exercise Physiology Laboratory Manual: Tests, Procedures and Data* padatahun 1996. Anthropometry menurut Roger Estondan Thomas Reilly (2009: 1) as a follow:

Anthropometry are concerned about the relation between structure and function of the human body, particularly within the context of movement. Anthropometry has applications in a wide range of areas including, for example, biomechanics, ergonomics, growth and development, human sciences, medicine, nutrition, physical therapy, healthcare, physical education and sports science.

Anthropometry are study about the relation between structure and function of the human body which relate with the motion of the human body.

2. Ability Biomotor

Canoeing kind of branch rowing is a branch of sport which need a good support physical condition to be able produce high achievement, because a branch of rowing sport including vigorous sport, based on the use of energy and working skeletal of muscles. Components that supporting of achievement on a branch of rowing sport kind of canoeing according to CsabaSzanto(2009: 1) generally divided into 4 physical condition factor, namely :

1) Physical Condition factor
   a) Proportion of body parts b) Muscular strength
2) Psychology Factor
   a) Motivation. b) Will power
3) Skill and Technique factor
   a) Rhythm. b) Efficiency
4) Physiology factor
   a) Circulation system b) Energy supply c) Nutrition.

3. Rowing kayak size

In general anatomical structure of rowing kayak divided into 2 big part, there are shaft paddle two paddle leaves that are at the end of the stalk. Paddle kayak to competence usually forming leaf angle paddle 72^0-80^0 which meant facilitate paddle rotation to be faster and reduce wind resistance when the leaves are above the water paddle.

4. The nature of balance

Balance is one of a physical condition that can't be ignored. The element of balance is very prominent in daily activities like sitting, walking, standing and also in in different types of sports. Most of the activities someone needs a balance. In a simple way balance can be defined as a person's ability in in controlling the means of body. According to Abdul KadirAteng (1992:68) balance is the ability to control the motion of the tool of body.

3. Research Method

This research was conducting by using survey method by looking for balance is the ability to control the motion of the tool body. Technique of collecting the data by using path analysis. Analysis technique can be used to test the effect of direct and indirect toward *anthropometric factors,* Motor ability, dynamic balance, paddle size and skills of 28 athletes of kayak national training camp in 2015.

Research constellation can be seen in the following figure:

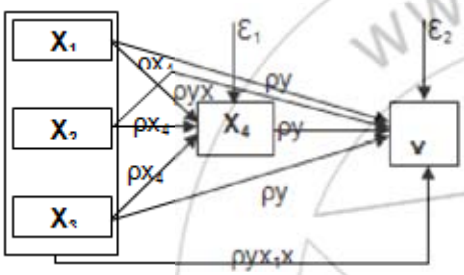

Figure: Constellation research Model

4. Discussion

1. First hypothesis Anthropometric positive effect toward rowing kayak skill on range 200 meter pelatnas athletes rowing 2015

Based on calculating analysis regression can be stated that the proposed hypothesis: anthropometry (X1) has direct effect positive toward rowing kayak skill in range 200 meter pelatnas athlete 2015 (X_5) was accepted. The first hypothesis was provide finding that anthropometric positive direct effect on the kayak paddle skills within 200 meters of national training athletes rowing in 2015.These findings give meaning that if you want to improve the skills of rowing kayak in range of 200 meters national training athletes rowing in 2015, it can be done through by increasing anthropometry.

2. Second Hypothesis: biomoto ability was direct effect positive toward rowing kayak in range 200 meter of pelatnas athlete on 2015.

From the calculation results of data analysis it can be stated that hypothesis,biomotor (X2) ability effect on a positive direct toward skill of rowing kayak in range 200 meter pelatnas athlete on 2015 (X_5) was accepted. The result of the second hypothesis was provide a finding that rowing size effect on a positive direct toward dayung kayak skill in range 200 meter.

3. Third hypothesis: size of rowing effect on positive direct toward dayung kayak skill 200 meter pelatnas of rowing athletes on 2015.

From the calculation results of data analysis it can be stated that : size of rowing (X3) was effect on direct positive toward rowing kayak skill 200 meter of palteans rowing athelet 2015 (X_5)was accepted. The result of hypothesis analysis was provide a finding that size of rowing was effect on positive direct toward rowing kayak in range 200 meter.

4. Fourth hypothesis: balance was effect on direct positive toward rowing kayak skill in range 200 meter of pelatnas athletes on 2015.

Form the result of data analysis it can be stated that : a balance (X_4) effect on direct positive toward roeing kayak skill in range 200 meter of pelatnasathlete on 2015 (X_5) was accepted. The result of analysis hypothesis was provide a finding the size of rowing was effect on positive direct toward dayung kayak skill in range 200 meter.

5. Fifth hypothesis: anthropometry was effect on direct positive ((X_1) toward a balance of paletnas rowing athelete on 2015 (X_4).

Form the result of data analysis it can be stated that: anthropometry effect on direct positive toward a balancae of paletnas rowing kayak on 2015 (X_4) was accepted. The result of analysis hypothesis was provide a finding that anthropometry effect on direct positive toward the size of rowing.

6. Sixth hypothesis: Biomotor ability was effect on direct positive (X_2) toward a balance of paletnas rowing athelete on 2015 (X_4).

Form the result of data analysis it can be stated that: bimotor ability (x2) effect on direct positive toward a balance paletnas rowing on 215 (x4) was accepted. The result of the sixth hypothesis was provide a finding that biomotor ability was effect on direct positive toward a balance.

7. The seventh hypothesis: Size of rowing effect on positive direct effect (X3) toward the balance of the national training athletes rowing in 2015 (X4).

From the calculation results of data analysis can be stated that the proposed hypothesis: the size of the rowing (X3) effect on positive direct effect on the balance of the national training athletes rowing in 2015 (X4 was accepted. The results of the sixth hypothesis analysis provides findings that the ability biomotor positive direct effect on the balance.

8. The eighth hypothesis: anthropometry X1), the ability biomotor (X2), and the size of the rowing (X3), jointly direct effect on positively on the rowing kayak skills within 200 meters of national training athletes rowing in 2015 (X5).

From the calculation results of data analysis can be stated that the proposed hypothesis: anthropometry (X1), the ability biomotor (X2), and the size of the paddle (X3), giving a direct effect on jointly on skills paddle kayak 200 meters athlete Pelatnas rowing 2015 (X5) was effected. Overall it can be concluded that after testing statistically against the empirical data have been obtained from the field can be said that the three independent variable anthropometry, the ability biomotor, and the size of the

paddle directly affect significantly positive with the skills paddle kayak 200 meters athlete pelatnas rowing in 2015.

5. Conclusion

Conclusion of the study as follows: (1) Antopometrik positive effect on rowing kayak skill a range of 200 meters (2) The ability biomotor positive effect on rowing skill kayak a range of 200, (3) Dimensions of rowing was provide a finding positive effect on rowing skill kayak a range of 200, (4) Balance positive effect on the skills rowing kayak a range of 200 meters, (5) Antopometrik positive effect on the dimensions of the rowing kayak athletes Pelatnas paddle 2015, (6) the ability biomotor positive effect on the dimensions of the rowing, (7) the balance of positive effect on the dimensions of the rowing (8) Antropometik , capabilities and dimensions biomotorrowing together positive effect on skill rowing kayak range 200.

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