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# Model of National Athlete Training Centre-B toward the Prestige of Provincial Government of All Indonesian Athlete Association in East Java

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**Abstract** The aim of this research is to know whether the use of new guideline produced is effective toward the athlete's prestige of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java. Type of this research is Research and Development (R&D) by following research procedure which is conducted by seven stages, including: 1) Potential and problem, 2) data collecting, 3) product design, 4) design validity, 5) revision of design, 6) product testing, 7) product revision. Kinds of data used in this research are Qualitative data including field observation data, interview and questionnaire, and quantitative data including validity counting of data and reliability of questionnaire assessment of design model of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java. Technique of collecting data is conducted into two stages such as processing qualitative and quantitative data. Analyzing data in this research uses qualitative and quantitative descriptive analysis. Qualitative analysis is conducted on interview, input and reduction in product assessment, as well questionnaire about development model design. Meanwhile, quantitative analysis is used for assessment of development model design of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java. The research finding indicates that the prestige reached by the athletics athlete of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java after applying the model has been significant increased. This case shows that the model applying has good level of effectiveness. Therefore, the development model of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java is feasible to apply to improve the junior athlete prestige in East java.

**Keywords** Model, National Athlete Training Centre-B, Provincial Government of All Indonesian Athlete Association in East Java

## 1. Introduction

Sport is one of the phenomena of social activity existing in every corner of the world and becomes a difficult part to be separated from people's life, as well as made as a social institution, according to Erin Cameron, etc. [1] sport is a social institution. Through sport, it is expected that sport can form a national character building in a nation, so that sport becomes one of the strategies to build confidence, national identity, and national pride. Various development advances in sports that boil down to the increasing culture and achievement of sports, one of the supporting components is due to the advancement of Science and Technology [2].

The development of Science and Technology over time has a significant impact in the field of sports, especially in the field of athlete's development to achieve achievements. This is appropriate with the opinion previously expressed by Wijono [3], that through athletes' development in the field of sports has provided evidence that in order to achieve a high achievement, it is not obtained instantly, but it takes a long, gradual, and comprehensive time in conducting the development and it is supported by the proper use of sports science. According to Christine Green [4] to achieve athlete's achievement, it is required athlete recruitment, athlete retention (athlete consistency care), and athlete transition. Athlete recruitment requires identification, activities or championships at the regional level. Athlete retention should focus on motivation, socialization, and commitment and further research development literature is required.

The application of Science and Technology in Asian countries, has been already more advanced and it is proven by the achievements at the 2015 Sea Games event in Singapore with medals, such as Thailand performed as the general champion with 95 gold medals, Singapore as the host was second place with a collection of 84 gold medals, Vietnam 73 gold medals and Malaysia 62 gold medals in fourth place. Indonesia left behind with the achievements in the 5th rank, this case becomes one of the driving factors that need the set up a national sports development system, such as a well-planned organizational program, a programmatic development system and the development of talented athletes.

**Table 1.** The Result of Medal Acquisition in Sea Games Singapore 2015

| Rank | Country | Gold | Silver | Bronze |
|---|---|---|---|---|
| 1 | Thailand | 95 | 83 | 69 |
| 2 | Singapore | 84 | 73 | 102 |
| 3 | Vietnamese | 73 | 53 | 60 |
| 4 | Malaysia | 62 | 58 | 66 |
| 5 | Indonesia | 47 | 61 | 74 |
| 6 | Philippine | 29 | 36 | 66 |
| 7 | Myanmar | 12 | 26 | 31 |
| 8 | Cambodia | 1 | 5 | 9 |
| 9 | Laos | 0 | 4 | 25 |
| 10 | Brunei | 0 | 1 | 6 |
| 11 | Timor Leste | 0 | 1 | 1 |

According to data records at the 28th Sea Games in Singapore in 2015, athletics is one of the most contributors to gold medal scoring, such as 7 gold medals, 4 silver medals, and 4 bronze medals. The athletes contributed gold medals were: Agus Prayogo in the men's 10,000-meter sprint, Hendro in the men's 20 km sprint number, Triyaningsih in the women's 5,000 meters and 10,000 meters sprint, Rini Budiarti on the women's 3,000-meter sprint number, and Maria Londa on the women's long jump and jump numbers.

The data indicate that the achievements achieved by athletics at the Sea Games are good enough, although they cannot be compared to Thailand or Vietnam. Therefore, it needs to be evaluation and classification of sports having potential to contribute medals, so that the improvement of the guiding program and application of Sport Science can be more focused. According to Dragan Milanovic, etc. [5], new technologies in sports offer great benefits and efficiencies to training planning and programming, diagnostic level of athlete readiness, implementation of training or competition, and recovery efficiency. The approach is scientifically conducted through cross and interdisciplinary. The sophistication used in the field of measurement and evaluation and the discovery of instruments that can be used to foresee someone's achievements, will encourage us to work effectively in identifying and selecting talented and focused athletes in the branches that are pursued or become the mainstay sports in obtaining medals, such as athletic sports.

National Sports Week (NSW) is the benchmark of the highest event achievement of athletes at the national level, because it is followed by all provinces in Indonesia, one of them is East Java. East Java is one of the contingents that is quite successful in participating in the four-year event, proven from the data 2 (two) period of the previous NSW implementation managed to achieve the improvement of the general final classification such as 3rd ranked in NSW XVII in Riau with the acquisition of 86 gold medals, 86 silver medals, 84 bronze medals, while NSW XIX in West Java managed to come out in the 2nd place general with the acquisition of 132 gold medals , 136 silver medals, and 131 bronze medals. However, there are several sports that are in the spotlight due to the decline in gold medal scoring, one of which is athletics.

**Table 2.** The Ratio of Medal Acquisition of East Java in Last Twice National Sport Week (NSW)

| NSW XVIII Riau 2012 | | | | NSW XIX West Java 2016 | | | |
|---|---|---|---|---|---|---|---|
| Region | Gold | Silver | Bronze | Region | Gold | Silver | Bronze |
| Special Capital Region Jaya | 110 | 101 | 112 | West Java | 217 | 157 | 157 |
| West Java | 99 | 79 | 101 | East Java | 132 | 138 | 135 |
| East Java | 86 | 86 | 84 | Special Capital Region Jaya | 132 | 125 | 119 |

**Table 3.** The Ratio of Medals Acquisition of Athletics Sport of East Java in the last Three National Sport Week (NSW)

| | Gold | Silver | Bronze |
|---|---|---|---|
| NSW XVII 2008 East Kalimantan | 7 | 6 | 8 |
| NSW XVIII 2012 Riau | 9 | 7 | 4 |
| NSW XIX 2016 West Java | 4 | 8 | 4 |

The results of NSW XVII data in 2008, NSW XVIII in 2012, and NSW XVIV results in 2016 showed that medal scoring in athletic sport decreased significantly. The 17th NSW in 2008 in East Kalimantan, All Indonesian Athlete association East Java athletic sport earned total 21 medals including 7 (seven) gold, 6 (six) silver and 8 (eight) bronze. In the 18th NSW in 2012 in RIAU, medals acquisition in athletics (9 gold medals, 7 silver medals, and 4 bronze medals), while in the 2016 PON XIX in West Java, they won medals in athletics (4 gold medals, 8 silver medals, and 4 bronze medals).

The comparison of medal scoring in National Sport Week (NSW) XVII, NSW XVIII, and NSW XIX athletic sport has many issues which need to be analyzed, such as: (1) problems in the operational standards of operational training procedures, socialization, selection of athletes or coaches that are not ready in pre-condition approaching NSW XIX in West Java, besides problems with stakeholders in the Provincial Government or Government that have not delivered programs and objectives yet to prepare NSW XIX in West Java , (2) problems with athlete criteria and coach criteria to input in achievement in NSW XIX in West Java, (3) problems in the management process in preparation or running TC (Training Centre) have not been systematically organized, starting from the system training and operational management, (4) The absence of the latest Regional Training Centre guidance athletics after the guidance published in 2011, so that the development process will be hit with the advancement of science and technology used by other contingents, from the literature study of Munir Talović's et.al, research result [6] shows that the training Centre is the best place where professional football teams do preparations for matches, conduct activities that are primarily focused on the physical skills and preparation of players, so that it becomes part of the team that has an important role and helps for the development of young players, the training center is separated from the stadium, and isolated from the noise, allowing players to practice calmly. Based on the research, it was concluded that to obtain maximal result in sport, training concentration preparation is required, same as the case with athletic sports.

The problem become an interesting factor for researchers to conduct in-depth research on "Development Model National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java ". The results of the research are expected to be used as a model for the latest development guidelines to be utilized by All Indonesian Athlete Association of East Java in development of achievements towards general champions at athletic championships both national and international.

# 2. Method

This type of the research is Research and Development (R&D) by following research procedures conducted in 7 steps, including: (1) Potential and problems, (2) Data collection, (3) Product design, (4) Design validation, (5) Design revision, (6) Product trial, (7) Product revision. The types of data used in this research are qualitative data (field observation data, interviews and questionnaires) and quantitative data (data on validity calculation and reliability of the assessment development model design of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java). Technique of Data collection techniques is conducted in two stages, such as: first, processing qualitative data by reviewing the results of observations, interviews and inputs from statisticians, management experts, strength and conditioning experts, talent scouting appropriating with product development procedures, and second, processing quantitative data conducted through validity and reliability tests and quantitative data (scores) which are then spelled out qualitatively. The data analysis conducted in this study uses qualitative and quantitative descriptive analysis techniques. Qualitative analysis was conducted on interviews, inputs and reductions in product assessment, as well as questionnaires about development model design of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java. The techniques of Quantitative data analysis used to assessment of the development design model of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java.

# 3. Result and Discussion

### 3.1. Expert Validity

The product of this research is the model of development pattern of Athlete Training Centre of East Java. From the preliminary research results, it shows that an effective and efficient pattern of development model training is needed by provincial government of All Indonesian Athletics Association of East Java to optimize the achievement of athletes. Validators involved in this research are several competent experts, i.e.: statistics expert, management expert, strength and conditioning expert and talent scouting expert. The expert validity conducted in this research uses Focus Group Discussion (FGD) which is by presenting initial product draft in

writing and then presented in front of the experts. Input and suggestion of the experts in FGD at the first stage is described on the Table 4 below.

To get more detailed input and suggestions, focus group discussion (FGD) is conducted in the second phase. The results of input and suggestion of experts in focus group discussion (FGD) second phase towards the initial product of development pattern model of Pre-National Training Centre-B Provincial Government of all Indonesia Athlete association East Java are described in Table 5 below.

**Table 4**. Input and Suggestion of the Experts toward Initial Product Draft

| Chapter | Indicator | Description | Input and Suggestion |
|---|---|---|---|
| 1 | General | Name and position<br>Place and time assignment<br>Basic implementation<br>Status of National Training Center<br>National Training Center- B<br>Objectives, functions and tasks. Mechanism of National Training Center-B | It needs to be conveyed about the vision and mission of the target pattern applied |
| 2 | Organization | Organizational structure<br>Organization task<br>Organization<br>In charge of Training | Appropriating with great caretaker of All Indonesia Athletic Association |
| 3 | Athlete and coach | Athlete qualifications<br>Coach qualifications<br>Athlete quota<br>Coach status<br>Athlete rights<br>Athlete's obligations<br>Coach rights<br>Trainer's obligations<br>Rights of administrators except coaches and athletes | Athletes and coaches' input model of instruments and designs need to be explained in detail |
| 4 | Policy | The provision of support competition system<br>The participants of Support Competition System<br>Promotion and degradation<br>Punishment<br>Implementation of punishment<br>Others and closing | Made in detail and systematically so that it is easy to understand by all related party |

**Table 5.** Development Pattern Model of Athletic Training Centre of |East Java

| Aspect | Indicators | Sub Indicators |
|---|---|---|
| (1) | (2) | (3) |
| Condition | Athlete and Coach Selection | Current model of training, operational implementation and selection of athletes and coaches |
| *Input* | Athlete and Coach Selection<br>Criteria of athlete<br>Criteria of coach<br>3. Scientific Supporting Staff | Championship Results<br>Test: Anthropometry, Biomotion, Psychological<br>Knowledge of Sport Science, Psychological, Training Program<br>Coach Competency Standards<br>Training Standards<br>Biomechanical Personnel<br>Psychological Personnel<br>Sports Personnel |
| Process | Organization Structure<br>Training Centre Management<br>Management parameter<br>Training Centre Program (Technical & Non-Technical, Application of Sport Science / Lab Test dan Field Test) | Vision, Mission, Description of Needs, Regulations That Form the Basis of Training Methods of Training System,<br>Operational Manage-men, Nutrition, Accommodating, Schools, Facilities and Infrastructure, and Education<br>Competition Region / National, Period Technical practice & Non-Technical, Application Sport Science / Lab. test and Field Test |
| Output | *Key Performance Indicator* (KPI) Training Centre<br>*Key Performance Indicator* (KPI) Athlete<br>*Key Performance Indicator* (KPI) Coach | Service, Organizational System of Achievement, Award, Prosperity & Guarantee of Future Prosperity |

Table 5 indicates that there are several changes to the initial product that have been compiled, such as about the organizational structure, coach recruitment, athlete recruitment, coaching system, and budget system. The result of identification shows, that basically athletic sports development organizations in East Java are quite numerous, such as: clubs under All Indonesia Athlete Association, Centre for Student Sports Development and Training, Centre for Student (College) Sports Development and Training, and Regional Training Centre. Each sports coaching organization has definitively had its own main duties and functions. Therefore, in order to provide a solid foundation which is the basis of the footing of the establishment of National Training Centre-B athletics in East Java, it is necessary to formulate the basic duties and clear functions of the organization.

### 3.2. Description of Small Scale Testing Data

The results of the expert assessment of model offered can be presented in Table 6 below.

**Table 6.** Recapitulation Data of Experts' Assessment Toward Initial Products

| NO | MATERIAL | Score of Experts' Assessment | | | |
|---|---|---|---|---|---|
| | | SA | A | DA | DA |
| 1. | Appropriateness | 6 | - | - | - |
| 2. | Properness | 7 | 4 | 1 | - |
| 3. | Comprehensiveness | 9 | 5 | 1 | - |
| 4. | Clarity | 3 | 3 | - | - |
| 5. | Deepness | 30 | 2 | 1 | - |
| 6. | Attractiveness | 2 | 1 | - | - |
| 7. | Usefulness | 6 | 1 | 2 | - |
| 8. | Compliance | 2 | 1 | - | - |
| 9. | Usability | 11 | 1 | - | - |
| Sum | | 76 | 18 | 5 | - |

The data in Table 6, show that the initial product submitted is declared feasible for large-scale testing. This can be viewed from the experts' opinion stating strongly agree with the initial product submitted. The calculation result using percentages, showed that 77.78% of experts stated strongly agree, 16.16% of experts disagreed, 5.05% of experts disagreed, and 1.01% of experts disagreed. Therefore, it can be concluded, that the development of development pattern model of National Athlete Training Centre of All Indonesian Athlete Association of East Java fulfills the requirements to be tested in large-scale.

### 3.3. Product Revision

The results of testing analysis on a small-scale show, that the initial product is eligible to be tested in large groups. This means that initial products submitted and observed in small group testing can be tested in large groups immediately.

### 3.4. The Test of Product Effectiveness

Effectiveness test is conducted by comparing the results of achievements achieved by athletes between before and after the application of the model. The recapitulation of data retrieval results in the effectiveness test, can be described on Table 7.

Table 7 shows that the achievements achieved by athletic athletes' development of National Athlete Training Centre-B of All Indonesia Athlete association of East Java after the application of model have improved significantly. The results show that the application of Development Pattern Model of National Athlete Training Centre-B of All Indonesia Athlete association of East Java has good level of effectiveness. Therefore, the Development Pattern Model of National Athlete Training Centre-B of All Indonesia Athlete association of East Java deserves to be applied in order to improve the performance of East Java junior athletes.

Although some athletes have declined, it is not caused by the errors in model applying. The decline in achievement is more influenced by the stages of the training program implemented by the coach, which means that the athlete's pick performance is not oriented at the championship. Each athlete has a specific target at the event followed, so there are some events that are only for trying out. Therefore, the trainer does not give the target champion but it is more concerned with the process of accuracy in the implementation of the training program. The achievements of some athletes can also exceed the limit of pre-NSW 2021, but due to the age that cannot yet represent East Java in the 20th NSW event in Papua.

**Table 7.** Recapitulation of Data Retrieval Results in Effectiveness Test

| No | Name of Athlete | Number | Before the Application of Model | After the Application of Model |
|---|---|---|---|---|
| 1 | Abdul Wachid Hasyim | 400 meters | 53.17 | 54.45 |
| | | 10000 meters | 2:55.87 | 2:08:30 |
| | | | | |
| 2 | Angga Aji Satria | 100 meters | 11.34 | 11.70 |
| | | | | |
| 3 | Barik Abrar | Long Jump | 6.92m | 7.18m |
| | | | | |
| 4 | Dheanova Pramudya P. R. | 110 m Wicket | 17.79 | 15.08 |
| | | | | |
| 5 | Dimas Pramudya Kusuma | 110 m Wicket | 15.62 | 15.08 |
| | | | | |
| 6 | Edgar Davitson | High Jump | 1.89m | 1.75m |
| | | | | |
| 7 | Farel Wijayanto | High Jump | 1.66m | |
| 8 | Iqbal Naufal | High Jump | 1.92m | 1.80m |
| 9 | Jihan Lusiami | 200 meters | 26.59 | 26.39 |
| | | | | |
| 10 | Meisa Alvalen Cahyanti | 200 meters | 13.51 | 29.56 |
| | | | | |
| 11 | Moh Turi | 400 meters | 52.96 | 53.10 |
| | | 800 meters | 2:03.76 | 2:12.95 |
| | | | | |
| 12 | Mohammad Feriyanto | Long Jump | 6.45m | |
| | | Double Jump | | 14.09m |
| | | | | |
| 13 | Muh Reva Putra Andika | 400 meters | 55.99 | 49.74 |
| | | 400 Wicket | 57.32 | 57.36 |
| | | | 22.64 | |
| 14 | Muhammad Azizi Rabbani | 400 meters | 54.09 | 54.67 |
| | | | | |
| 15 | Nabilah Fafrilian A | Long Jump | 5.30m | 5.41m |
| | | High Jump | 1.63m | 1.70m |
| | | | | |
| 16 | Prasha Rizki | 100 meters | 10.66 | |
| | | 200 meters | 21.73 | |
| | | | | |
| 17 | Rizal Syaiful Fatih | Double Jump | 14.47m | 14.52m |

### 3.5. Final Product

Final product is the produce produced after the revision of product test have been finished. Therefore, the result is expected to be a reflection of the right product toward the target aimed, i.e. National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java. The final product of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java is a guide book of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java which is divided into 5 chapters and it is begun with the introduction. The final product is the revision of

previous several stages and it can be explained as follow:

**INTRODUCTION**

Introduction contains general goal of organizing National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java and specific goal of the guide book arranged.

**CHAPTER 1**

Chapter 1 contains about the general things supporting the implementation process of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java covering: 1) name and position, 2) place and time of determination, 3) the fundamental of implementation, 4) the status of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java, 5) the goal, function and role of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java, and 6) the mechanism of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java.

**CHAPETR II**

Chapter 2 discusses about the organization of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java covering: 1) organizational structure of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java, 2) the role and the function of organization.

**CHAPTER III**

Chapter 3 discusses about the athlete and coach, covering 1) the qualification of the athlete and the coach, 2) status of athlete and coach and 3) rights and obligations of athlete and coach.

**CHAPTER IV**

Chapter 4 emphasizes more on the discussion about the implementation policy of National Athlete Training Centre-B of provincial government of all Indonesian athlete association in East Java, covering: 1) Support Competition System and degradation and 2) the penalty and its implementation.

**CHAPTER V**

Chapter 5 contains about other things and closing.

# 4. Conclusions

There are several fundamentals that can be concluded in this research such as: first, there are some findings that should be corrected in the product one (old) guidelines for implementation of National Athlete Training Centre-B of all Indonesian Athlete Association of East Java which has been used, including; a) the formulation of the objectives of the institution seems to overlap (not clear) with the workspace of other sports development institutions; b) It is necessary to adjust the organizational structure with the institution shading directly such as All Indonesian Athlete Association (AIAA); c) the weak of instruments and design of input models of athletes and coaches; d) the details of the reference which is the basis of the policy concerning all relevant stakeholders need to be detailed and clarified. Second, the changes made between the initial product and the final product are quite significant, such as adding the components appearing/ found in the early stages of the information excavation process (review of existing products / initial product). The problem intended is caused by the irrelevance/ or ineffectiveness of some steps in the guidelines or new needs arising in the practice of implementing the program. The results of the testing conducted toward the guidelines, in real terms, have better impact on the course of the organization.

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