ASEAN FORUM AND INTERNATIONAL CONFERENCE ON SPORT SCIENCE AND TECHNOLOGY (AFICSST)
Bali, Indonesia, 8-11 August 2014

"Bridging The Gap In The Advancement Of Sport Sciences And Technology Implementation Among South East Asia Countries"

The Deputy Assistant of Sport Science and Technology Division
Deputy Minister of Elite Sports Enhancement
Ministry of Youth and Sports

http://www.kemenpora.go.id/AFICSST/
Assalamu'alaiwah warrahmatullahi wabarakatuh

May we first made our highest praise and thank to Allah SWT, for His bless we able to gathered here on the prestigious occasion Asean Forum And International Conference On Sport Science And Technology (AFICSST) under the theme, “Bridging The Gap In The Advancement Of Sport Sciences And Technology Implementation Among South East Asia Countries”. It is expected this event will create a venue for ASEAN sport scientists to learn, and understand each other’s heterogeneous level of expertise and special feature in the area of sport sciences theories, their praxis, and in the seriousness level of their implementation.

This conference which hold by The Deputy Assistant of Sport Science and Technology Division Ministry of Youth and Sports, The Republic of Indonesia, it's also expected to become arena for exchange experiences and expertise and at least information regarding the best practices in the area of sport sciences and technology, to learn together from the experience of other advance countries who also gather in the event of conference in the respected sport disciplines, and to initiate a concrete cooperation and synergy between and among university academicians and students in the area of sport sciences and technology researches.

I would like to deliver our highest respect and appreciation to Minister of Youth and Sport of Republic of Indonesia and to all those who have helped bring this event, and it is my great pleasant to express my deep gratitude to our honourable guests, Dr. Bart Crum Retired Professor from the Free University, Amsterdam Netherlands; Mr. Randall L. Wilber, Ph.D., FACSM, Senior Sport Physiologist from USOC; Prof. Gareth Stratton, Ph.D. from Swansea University, United Kingdom; Prof. Martin Lames from Faculty for Sport and Health Science Technical University Munich, Germany; Mr. Kevin Ball, Ph.D. Biomechanist from ISEAL, Victoria University Australia; Prof. Hideaki Soya, Ph.D. from University of Tsukuba Japan; Assoc Prof. Ma Xindong, Ph.D. from Tsinghua University, Beijing, China Prof. Hyo Jeong Kim, Ph.D. from KNSU, Seoul, Korea; Prof. Suebsai Boonveerabut, Ph.D. from Srinakharinwirot University, Thailand; Assoc Prof. Mohd Salleh Aman, Ph.D. from University of Malaya, Malaysia; and last but not least to Prof. Toho Cholik Mutohir, Ph.D. from State University of Surabaya Indonesia. I really expect that this meeting will be beneficial for all of us and have direct to the development of the sports.

Allow me to express my thank to the participants and audiences from Indonesia and other foreign countries who are enthusiastic to attending this precious conference. I do hope that all audiences will gain important values and collaborate it into our own fields and make crucial changes in the future. Beside that, I also convey thank to all organizing committees who has gave their outstanding commitment for presenting this international conference.

Wassalamu’alaikum warrahmatullahi wabarakatuh

Sincerely yours,

Prof. Dr. Djoko Pekik Irianto, M.Kes., AIOD.
SCIENTIFIC COMMITTEE

Chair:
Prof. Dr. Imam Sujudi, M.A.

Deputy Chair:
Prof. Dr. Tandiyo Rahayu, M.Pd

Members:
Prof. Dr. Hari Setijono, M.Pd
Prof. Dr. Adang Suherman, M.A.
Prof. Dr. M.E. Winarno, M.Pd.
Prof. Dr. Hari Amirullah Rachman, M.Pd.
Dr. Wahjoedi, M.Pd.
Dr. Asep Suharta, M.Pd.
Dr. Dimyati, M.Si.
Drs. Toto Subroto, M.Pd.

Reviewer:
Dr. Setya Rahayu, M.S.
Drs. Agus Mahendra, M.A.
Bambang Sutiyono, M.Pd.
Herka Maya Jatmika, M.Pd.
Muhammad Alfin, M.Pd.
Prayogi Dwina Angga, S.Or., M.Pd.
CONTENTS

COVER 1

PREFACE 2

SCIENTIFIC COMMITTEE 3

CONTENTS 4

MAIN SPEAKER

THE SCIENTIZATION OF HIGH-PERFORMANCE SPORT: LOOKING FOR BALANCE BETWEEN TECHNOLOGICAL PROGRESS AND ETHICAL RESPONSIBILITY
Dr. Bart Crum, The Netherlands 11

THE ROLE OF COMPUTER SCIENCE IN THE ADVANCEMENT OF HIGH PERFORMANCE SPORT
Prof. Dr. Martin Lames, TU München, Germany 19

USE OF SPORT SCIENCE AND TECHNOLOGY IN THE PREPARATION OF TEAM USA ATHLETES
Randall L. Wilber, PhD, FACSM, Senior Sport Physiologist, Athlete Performance Lab, United States Olympic Committee, Colorado Springs, Colorado, USA 23

THE EFFECT OF GROWTH AND MATURATION ON PERFORMANCE: MESSAGES FOR TALENT DEVELOPMENT
Professor Gareth Stratton, Applied Sports Technology Exercise Medicine (A-STEM) Research Centre, Swansea University, UK 25

CHANGES IN SERUM CARTILAGE OLIGOMERIC MATRIX PROTEIN (COMP), PLASMA CPK AND PLASMA hs-CRP IN RELATION TO RUNNING DISTANCE IN A MARATHON (42.195 KM) AND AN ULTRA-MARATHON (200 KM) RACE
Hyo Jeong Kim, Yoon Hee Lee, & Chang Keun Kim, Associate Professor, Director of Aging, Research Center, Korea National Sport University, South Korea 26

SPORT SCIENCES AND TECHNOLOGY: CHALLENGES AND OPPORTUNITIES IN IMPROVING SPORT PERFORMANCE IN INDONESIA
Toho Cholik Mulohir, Professor, Faculty of Sport Sciences, State University of Surabaya, Indonesia 32

USING BIOMECHANICS TO IMPROVE PERFORMANCE
Kevin Ball, Institute of Sport, Exercise and Active Living (ISEAL) Victoria University, Melbourne Australia 39

POTENTIAL EFFECTS OF MILD EXERCISE ON THE BRAIN AND COGNITIVE PERFORMANCE: TRANSLATIONAL RESEARCH FROM ANIMAL TO HUMAN
Hideaki Soya, Ph.D., Chairman, Laboratory of Exercise Biochemistry & Neuroendocrinology University of Tsukuba Faculty of Health & Sport Sciences, Tsukuba, Japan 43

IMPACT OF THE TALENT DEVELOPMENT ENVIRONMENT ON HIGH PERFORMANCE ATHLETES IN CHINA
Ma Xindong & Wu Dongyi Division of Sport Science & Physical Education, Tsinghua University, Beijing & The School of Social Sciences of Tsinghua University, Beijing 51
SPORT PSYCHOLOGY CONSULTING FOR THAI NATIONAL TEAM: SUCCESS AND CHALLENGE
Suebsai Boonveerabut PhD, Department of Sport Science, Faculty of Physical Education, Srinakharinwirot University, Thailand

AN ASSESSMENT ON VARIOUS DISCIPLINES AND TECHNOLOGY OF SPORT SCIENCE IN MALAYSIA
Mohd Salleh Aman, PhD
Sport Centre, University of Malaya

ORAL PRESENTATION

Sport Biomechanic & Technology

VIDEOTAPE FEEDBACK: A REWARDING TECHNIQUE TO IMPROVE KEDENG SPIKE IN SEPAKTAKRAW SPORT
I Ketut Semarayasa & I Wayan Arantayasa, Ganesha University of Education, Indonesia

SOCCER GAME ANALYSIS WITH VISUAL BASIC PROGRAMMING
Mohammad Faruk, State university of Surabaya, Indonesia

ELECTRIC POLE HIGH JUMP BASED ON ATMEGA16 MICROCONTROLLER USING DC MOTOR AND REMOTE SYSTEM TO SUPPORT SPORTS ACHIEVEMENT
Novi Suparman, Widi Putra Gunu, & Rizki Edi Juwanto, State University of Yogyakarta, Indonesia

A THREE-DIMENSIONAL ANALYSIS OF THE TENNIS SERVE
Yadi Sunaryadi, Indonesia University of Education, Indonesia

Sport Exercise & Health

THE EFFECT OF SINGLE SESSION AEROBIC EXERCISE WITH ERGO CYCLE TO BGL IN PATIENTS WITH TYPE 2 DIABETES MELLITUS
Korina Wulandari & Wara Kushartani, State University of Yogyakarta, Indonesia

THE EFFECT OF YOGAROBIC ON RECOVERY HEART RATE AND MENOPAUSE SYMPTOMS IN PERIMENOPAUSAL WOMENS
BM. Wara Kushartani, State University of Yogyakarta, Indonesia

ACTN3 GENE: A CANDIDATE GENE FOR SPORT PERFORMANCE (STUDY CASE OF INDONESIAN COMBAT SPORTS ATHLETES)
Rachmah Laksimi Ambardini, State University of Yogyakarta, Indonesia

CORRELATION BETWEEN PHYSICAL ACTIVITIES AND ALIVE AGE ESTIMATION MEMBER OF AEROBIC GYMNASTICS STUDIOS IN SURABAYA
Kunjungh Ashadi, State University of Surabaya, Indonesia

THE IMPORTANCE OF VITAMIN D IN SPORTS
Ni Luh Kadek Ali Annari, Ganesha University of Education, Indonesia

THE ROLE OF VITAMIN C AND E AS ANTI OXIDANT IN EXERCISE
Pitu Adi Suputra & Made Sudaryani Pasek, Ganesha University Of Education, Indonesia

THE INFLUENCE OF SPORTSTART ON THE PERCEPTUAL MOTOR DEVELOPMENT OF EARLY AGE CHILDREN
Dian Pujianto, Bengkulu University, Indonesia
ENERGY METABOLISM IN SPORTS
I Nengah Sandi & Daniel Womsiwor, Udayana University, Indonesia

TRAINING METHODS TO INCREASE FOOTBALL PLAYER’S AGILITY (CASE STUDY IN SMK X DENPASAR)
Daniel Womsiwor & I Nengah Sandi, Cenderawasih University, Indonesia

THE BALANCE TRAINING AND ANKLE SPRAINS IN BADMINTON PLAYERS (REVIEW)
Sri Sumartiningsih, State University of Semarang, Indonesia

PSYCHOMOTOR THERAPY IN RELATED TO PHYSIOTHERAPY IN SPORT FOR PEOPLE DISABILITIES: A COMPILATION OF VISITING STUDY
Bambang Abduljabar, Indonesia University of Education, Indonesia

THE EFFECT OF SPEED AGILITY AND QUICKNESS (SAQ) AND PLYOMETRIC ON SPEED AND AGILITY OF MALE FOOTBALL ATHLETES IN TADULAKO UNIVERSITY
Didik Purwanto, Tadulako University, Indonesia

Sport Psychology & Education

MENTAL TOUGHNESS AND TEAMWORK ON WOMEN ATHLETES OF MARTIAL ART, GAMES, AND CONCENTRATION SPORTS (STUDY ON ATHLETES OF WEST JAVA NATIONAL OLYMPIC COMPETITION XIX REGIONAL TRAINING CENTRE)
Nina Sufresna, Berliana, Ucup Yusup, Etor Suwardar, Suhana, Indonesia University of Education, Indonesia

THE EFFECTS OF PSYCHOLOGICAL ASPECTS TOWARDS INDIVIDUAL 100 METERS SPRINTER’S PERFORMANCE
Mitakhrul Jannah, State University of Surabaya, Indonesia

THE PRELIMINARY STUDY OF MENTAL IMAGERY FUNCTIONS IN BADMINTON BEGINNER ATHLETES
Yusuf Hidayat & Sukadiyanto, Indonesia University of Education, Indonesia

THE IMPROVEMENT OF SELF-CONFIDENCE THROUGH THE IMAGERY TRAINING PROGRAM AMONG WUSHU ATHLETES IN CENTRAL JAVA
Henry Setyarwati, State University of Semarang, Indonesia

THE EFFECT PETTLEP IMAGERY ON ACCURACY RETURNING BADMINTON SERVICE
Suwat Luangon, A. Siripatt, and S. Boonveerabut, Srinakharinwirot University, Thailand

STRUCTURE OF INTELLECTUAL ON BADMINTON SERVING IMAGERY ABILITY
Nuallong Anutfaranggoon, S. Boonveerabut, and A. Siripatt, Srinakharinwirot University, Thailand

LITERATURE REVIEW ABOUT IMAGERY ON PENCAK SILAT OF MATCH CATEGORY: A COMBINATION OF TWO THEORIES OF IMAGERY
Kumiati Ranayuni, Malang State University, Indonesia

THE CONTRIBUTION OF PARENTING PATTERN AND SOCIAL ENDORSEMENT TOWARDS SWIMMING ATHLETES ACHIEVEMENT IN YOGYAKARTA SPECIAL DISTRICT
Agus Supriyanto, State University of Yogyakarta, Indonesia

THE INFLUENCE OF INTEGRATED PSYCHOLOGICAL SKILL TRAINING IN ENHANCING SELF CONFIDENCE OF PPLP DKI JAKARTA TAEKWONDO
Muhammad Syauqi Putra, University of Indonesia, Indonesia

ANXIETY CONTROL THROUGH THE ACTIVE MEDITATION IN HIKING PROGRAM
Kardjono, Indonesia University of Education, Indonesia
MENTAL HEALTH BENEFITS OF PHYSICAL ACTIVITY AND SPORT PARTICIPATION
Made Suadnyani Pasek, Putu Adi Suputra, Made Sri Dewi Lestari, Ganesha University of Education, Indonesia

IMAGERY EXERCISE IN GYMNASTICS MOTIVATION AND SELF CONFIDENCE
Helmy Firmansyah, Indonesia University of Education, Indonesia

THE EFFECT OF PETTLEP IMAGERY ON BADMINTON SERVING ACCURACY
Taviophop Peungssoonthonsirimas, A. Siripatt, and S. Boonveerabut, Srinakharinwirot University, Thailand

MANAGEMENT OF SPORT TOURISM AS A POTENTIAL FACTOR IN ORDER TO PREVENT SPIKE INCIDENCE OF HIV/AIDS IN BALI
Made Kurnia Widiastuti, Putra Adhanya, Ni Putu Dewi Sri Wahyuni, Ganesha University of Education, Indonesia

Sport Sociology, Philosophy & Management

STAGNATION OF SPORT SCIENCES IN THE HEGEMONY OF POSITIVISM PARADIGMS (A REFLECTIVE STUDY UPON THE DEVELOPMENT OF SPORT SCIENCES STUDENT ATTAINMENT IN FACULTY OF SPORT SCIENCES, YOGYAKARTA STATE UNIVERSITY)
M. Hamid Anwar & Hari Amirullah Rachman, State University of Yogyakarta, Indonesia

LOCAL WISDOM AND SPORTS TOURISM SYNERGY TO IMPROVE AN ECONOMIC VALUE
I Ketut Sudiana, Ganesha University of Education, Indonesia

ANALIZING GRAND STRATEGY OF THE 2014 – 2024 NATIONAL SPORT PERFORMANCE DEVELOPMENT
Wawan S. Suherman, State University of Yogyakarta, Indonesia

ASSESSMENT PHYSICAL FITNESS FOR TENNIS PLAYER
Ngatman Soewito, State University of Yogyakarta, Indonesia

Sport Talent & Assessment

DEVELOPED LINEAR MODEL TO DETERMINE FITNESS CAPACITY IN SCREENING, COACHING AND TRAINING EVALUATION
Bambang Purwanto, B. Pramono, Hariiana Asnar E., Airlangga University, Indonesia

SPORT TALENT SEARCH IN SCHOOL (WAYS OF SEARCHING TALENTED ATHLETES)
Hanik Liskustyawati & Sapta Kunta Purnama, Sebelas Maret University, Indonesia

PHYSICAL AND PSYCHOLOGICAL FACTOR AS POTENTIAL INDICATORS SPORT TALENT OF ROWING
Nurkholis, State University of Surabaya, Indonesia

CONTENT VALIDITY OF FUTSAL SKILL TEST
Agus Susworo Dwi Martaendro, State University of Yogyakarta, Indonesia

ANALYSIS OF THE ABILITY WOMEN’S BASKETBALL PLAYERS IN LIMA BASKETBALL COMPETITION 2013-2014 USING FIBA LIVESTAT
Budi Aryanto, State University of Yogyakarta, Indonesia

COMPARASION OF BODY COMPOSITION AND SOMATOTYPE CHARACTERISTICS OF SPRINTER ATHLETES AT AUE AND YSU
Eddy Purnomo, Ria Lumintuanro, Norikatsu Kasuga, Hideki Suzuki, State University of Yogyakarta, Indonesia
FORMETRIC MEASUREMENT OF POSTURE AND SPINAL ALIGNMENT FOR SOUTH SULAWESI'S NATIONAL ATHLETES IN INDONESIA
Muhammad Nadjid Bustan, Baharuddin Talib, Ians Aprilio, Khairil Anwar, State University of Makassar, Indonesia

ANTHROPOMETRIC, PHYSIOLOGICAL AND BIOMOTORIC PROFILES OF MALE JUNIOR SEPAK TAKRAW PLAYERS
Nining Widyah Kusnanik, State University of Surabaya, Indonesia

EDUCABILITY STUDENT PROFILE MOTOR SKILLS EDUCATION HEALTH AND PHYSICAL RECREATION FACULTY OF SPORT AND HEALTH GANESHAA EDUCATION UNIVERSITY
I Wayan Artanayasa, Ganesha University of Education, Indonesia

DEVELOPING A MODEL OF EXERCISE FOR PERFORMANCE SPORTS QUALITY EVALUATIONS (EMLO) KONI NORTH SUMATRA PROVINCE
Imran Akhmad, Suharto, Raha Dewi, State University of Medan, Indonesia

AUTHENTIC ASSESSMENT INSTRUMENT DEVELOPMENT FOR SKILL IN PHYSICAL EDUCATION, SPORT, AND HEALTH
Harjadi, State University of Medan, Indonesia

FUNCTIONAL EVALUATION OF SHOULDER BASED ON CONSTANT SCORE ON PORDA JABAR BASEBALL TEAM
Leonardo Lubis, Padjajaran University, Indonesia

POSTER PRESENTATION

THE EFFECTIVENESS OF SIDE ARM THROW COMPARED WITH OVERHAND THROW IN SOFTBALL
Fajar Awang Irawan, Semarang State University, Indonesia

CAPABILITY OF THE FUNCTIONAL MOVEMENT SCREEN IN PREDICTING INJURIES AMONG ATHLETES: A REVIEW
Rex John G. Bawang, Benguet State University

THE EFFECT OF 2.5% GLUCOSE ADMINISTRATION TOWARD FUTSAL PLAYERS AEROBIC ENDURANCE IN TUNGGUL HITAM PADANG WEST SUMATERA
Anton Komaini, State University of Padang, Indonesia

THE EFFECT OF PLYOMETRICS TRAINING TO ENHANCE LEG POWER FOR LAY UP PRACTISING (CASE STUDY IN BASKETBALL EXTRACURRICULAR SMP NEGERI 1 SINGOSARI)
Fuad Noor Heza, State University of Malang, Indonesia

STRENGTH AND CONDITIONING FOR 110 METER HURDLES
Robin Darwin B. Tialao

EFFECTS OF DYNAMIC AND STATIC STRETCHING ON THE SUBSEQUENT PITCHING PERFORMANCE IN COLLEGIATE BASEBALL PLAYERS
Theresa May B. Garin

SOLUTION-FOCUSED BRIEF COUNSELING (SFCB) FOR SPORT ACHIEVEMENT MOTIVATION IN SPORTS COACHING EDUCATION
Siti Hajar, Tunas Pembangunan University, Indonesia

POA-BASED SNAKES AND LADDERS GAME: IMPROVING ELEMENTARY STUDENTS' MULTILATERAL ABILITY
Margono, Yogyakarta State University, Indonesia
THE EFFECTIVENESS OF FAIR PLAY REWARDS IN SPORTSMANSHIP, FAIR PLAY, AND CHARACTERS IN U12 SOCCER GAME
Wachid Sugiharto, IKIP PGRI Palembang, Indonesia 343

SOCIAL INTERACTION AMONG FOOTBALL PLAYER ETHNO-PHENOMENOLOGY APPROACH AT PERSIBA BANTUL
Komarudin, State University of Yogyakarta, Indonesia 350

RELATIONSHIP BETWEEN SPORT COMMITMENT AND ATHLETE BURNOUT AT RAGUNAN JUNIOR HIGH SCHOOL STUDENT ATHLETE
Riawanto & Sri Fatmawati, University of Indonesia, Indonesia 357

HEALTH PROMOTING AND EXERCISE BEHAVIORS OF PEOPLE WITH PHYSICAL DISABILITIES IN THAILAND
Apanchanit Siripatt, D. Suksom., S. Taweepornpathomkul, S. Khongprasert, and K. Srihirun, Srinakharinwirot University, Thailand 363

THE EFFECT OF FEEDING WITH DIFFERENT GLYCEMIC INDEXES ON OXIDATIVE STRESS OF COLLEGE ATHLETES
Wilda Wells, State University of Padang, Indonesia 364
DEVELOPING A MODEL OF EXERCISE FOR PERFORMANCE SPORTS QUALITY EVALUATIONS NATIONAL SPORTS COMMITTEE OF INDONESIA NORTH SUMATRA PROVINCE

Imran Akhmad, Suharjo, Rahma Dewi
State University of Medan

ABSTRACT
This study aims to develop a model of quality evaluation exercise Achievement Indonesian National Sports Committee North Sumatra province by producing products such as: (1) quality documents and (2) develop an evaluation instrument quality exercise achievements. Research method utilized is Research and Development. Result of this research: (1) the results obtained by the analysis of the needs of 89% stated Exercise For Performance Sports Quality Evaluations products needed, (2) Indonesian National Sports Committee North Sumatra has no model of exercise for performance sports quality evaluations, (3) mapping results revealed that the existing coaching achievements sport among Indonesian National Sports Committee North Sumatra, Indonesian National Sports Committee City, Department of Youth and Sports North Sumatra. Product in the first year is the preparation of guidelines for the implementation of Quality Model Evaluation Exercise Sports.

Keywords: Evaluation, Quality, Practice, Sport, Performance.

INTRODUCTION
Sporting achievements in North Sumatra are inconsistent and are likely to continue to decline. This can be seen in the results of the multi event championships such as the National Sports Week. Moreover, it is seen in 6 times rolling National Sports Week, North Sumatra no longer ever reaches three (3) large, even decreased. In a move to support the achievement, Indonesian National Sports Committee North Sumatra launched various programs such intensive training program with the aim to increase the ranking on National Sports Week Riau in 2012 at the same time in West Java. The intended target is to penetrate the top 5 with 20 gold medals gained by continuing the tiered and sustainable development programs. The program failed because North Sumatra to rank 9, but the program is an excellent program that has the support budget from the budget with 3 major goals in 2020. In order to optimize the intensive training program it is necessary to study and reform, one of the fundamental problems is the issue of quality.

The condition is a potential and strength as well as substantial capital to support the achievement of sporting achievements at the national level. In fact, the possessed great power can not be used optimally. This is evidenced by the rise and fall of North Sumatra position in the multi event competitions such as National Sports Week held 4 years. Rise and fall of sporting achievement in today's North Sumatra possible because not optimal application of sports coaching system as a whole. Coaching program is through a tiered and sustainable development by promoting science-based and quality.

Approach to evaluation model used is the gap between the capabilities approach with standard capabilities that saw the gap between the state's ability to set the standard capabilities. It can be believed that the document product quality standard practice, procedure manuals and instrument quality evaluation exercise to ensure that all training providers to run intensive training and target-oriented and specified quality or quality and ensure that the exercises are performed based on the quality. If the situation is left unchecked it will adversely impact include: (1) the purpose of the North
Sumatra was ranked third for the National Sports Week XX 2020 and (2) the disbursement of the budget will not be a little wasted. Specifically, this research aims to improve the quality of exercise training on an ongoing basis. As a form of support for continuous quality improvement, this research produces products such as: (1) document the quality of exercise include a) the quality standards of practice, b) document procedures manual, c) work instructions, and (2) the quality of the evaluation instrument exercise. Role in order to achieve the purpose of the study was divided into 3-year stages, namely: First Year (2014) include; (1) Knowing the factual conditions of exercise training in the province of North Sumatra, (2) determine the level of need for the products, (3) Generate the first product in the form of guidelines for evaluating the quality of exercise training achievements. Outcome results of this study as follows: (1) Products are produced in the form of quality documents include; quality standards, procedures and work instructions manual can be used as a target or reference any variables athletic training for all stakeholders, (2) Evaluation Instrument Product Quality Exercise Sports can be used as a quality control device (quality control) exercise, and (3) Outcomes of this study into a pilot project to be utilized and developed in other sports.

The quality is good or bad rate or extent or degree of something High Quality http://lid.wikipedia.org/ something low level of significance the object depends on the quality of a process. Meanwhile, Crosby (1979) in Sasongko stated that the quality is the quality or appropriateness or suitability users. Bompa (1994) says that the practice is a systematic process of training is done repeatedly, with a gradually increasing number of load. from the description that exercise is not an instant process which systematically conducted in phases that do not just only one or two times, but over and over again.

Evaluation is derived from the word evaluation means assessment. This is in line with the opinion of Weis (1984) is defined as understanding the quantitative evaluation and compare the results with predetermined criteria, then the conclusions drawn about the effectiveness, grandeur, success and so on. The opinion contains characteristics: 1) activity has not been done, 2) planning, and 3) has the objective and measurable success. The evaluation aims to determine the achievement of goals that have been implemented. Furthermore, the results of the evaluation are used as the basis for conducting follow-up or subsequent to the decision-making.

In this study using evaluation models adopted from Provus gap in Fernandes (1986), namely the evaluation to determine the level of compliance of the standard (default) is specified in the form of performance (performance) is actually from the program. Further said that the standard is defined criteria, while the performance is the implementation of the program. While the gap that can be evaluated are (1) The gap between plans and implementing programs, (2) The gap between the suspected or predicted to be obtained and truly realized, (3) The gap between the state's ability to set the standard capabilities, (4) Gaps purposes, (5) gap on the part of the program that can be changed, and (6) gaps in the system that are not consistent.

Evaluation model used in this study models the capability gap between the status of the specified standard capabilities. This evaluation model has five stages: design, installation, process, and product evaluation. This is in line with the opinion of the Seals and Richey (1994) which states research development as a systematic assessment of the designing, development and evaluation of programs, processes and learning products that must meet the criteria of validity, practicality, and effectiveness.
RESEARCH METHOD
Development Procedures

This study used a Research and Development (Borg and Gall: 1989) or research and development with grouped in three stages, namely (1) pre-development stage include; portrait needs analysis and evaluation exercise conditions and the condition of the used quality evaluation; this is done to be able to formulate a hypothetical model of development through Focus Group Discussions, (2) the Development Phase include; the quality of documents and the development of training quality evaluation instruments through Focus Group Discussions, followed by testing a small sample, testing large groups, and (3) the implementation phase include; evaluating the quality of research training to an object that is a club or sports association built. Target products or users that were targeted in the development of the research instrument quality evaluation models are all over the coaches and sports administrators who perform exercise training program in North Sumatra-intensive achievements are: Indonesian National Sports Committee North Sumatra, Indonesian National Sports Committee district/City, Center for Education and Student Exercise and Center for Education and Student Exercise, as well as the top organization of sports other.

This study was conducted to produce a model of quality evaluation exercise prstarasi with the product (1) quality documents include exercise (quality standards, procedure manuals, instruction Work) and (2) the instrument quality evaluation exercise. The research activities carried out through three stages and three years. In the first year needs analysis and evaluation exercise portraits conditions and the condition of the used quality evaluation, this is done to be able to formulate a hypothetical model of development through Focus Group Discussion. Based on the needs analysis followed by the preparation of guidelines for the implementation of quality evaluation exercise achievements. At this stage produces a data inventory and product quality sports training documents that serve as the basis for the development of quality exercise instruments.

Table 1. Details of Activity and Achievement Indicators Research

<table>
<thead>
<tr>
<th>Activity</th>
<th>Implementation Techniques</th>
<th>Indicators of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage Pre-Development Needs</td>
<td>1. Analysis of the initial situation on the object of research, the results of the exercise, the exercise for this constraint</td>
<td>1. Initial conditions were analyzed</td>
</tr>
<tr>
<td>Analysis</td>
<td>2. Preparation of needs analysis instrument</td>
<td>2. Needs analysis instrument</td>
</tr>
<tr>
<td></td>
<td>3. Analysis of the needs of stakeholders</td>
<td>3. Obtaining the level of demand for the importance of product</td>
</tr>
<tr>
<td></td>
<td>4. Analysis of data from the initial survey</td>
<td>4. Conclusions and recommendations from the survey</td>
</tr>
<tr>
<td></td>
<td>5. Analysis of the need for a standard exercise</td>
<td>5. Standard formulation exercise</td>
</tr>
<tr>
<td></td>
<td>6. Sharing with experts (academics, practitioners, sports administrators)</td>
<td>6. Standard benchmarking exercise from the experts</td>
</tr>
</tbody>
</table>

The data was collected through observations, interviews and document research. Documentation is done to record objects in the field are difficult narrated. While studies conducted to collect the document data contained in the relevant documents as document preparation material quality standard exercise. Needs analysis carried out through a sample survey technique to 8 Indonesian National Sports Committee districts / cities in North Sumatra were divided into two regions; I Indonesian National Sports Committee region Medan, Tebing Tinggi, Asahan and Langkat. Region II consists of Indonesian National Sports Committee Region Tapanuli Tengah, Sibolga, Tanah Karo and Padang Sidempuan. Plus managing sports coaching achievements as Indonesian National Sports Committee North Sumatra with Intention, Education Center and junior student exercise and Education Center and senior student exercise. The number of respondents as many as 24 people.

RESULTS AND DISCUSSION

Results of the study include the level of demand for the products to be produced, mapping coaching sports in the province of North Sumatra, carried out quality evaluation model, which was developed conceptual models and the preparation of guidelines for the development of quality evaluation exercise.

Needs Analysis

The results showed that in general that in the Indonesian National Sports Committee North Sumatra, have not understood the importance of continuous quality achievement in fostering sports, as seen from the percentage of filling the questionnaire as follows; (1) an understanding of continuous quality improvement in the quality of 12%. Of the 24 respondents answered terryata 3 people know and understand, and 82% or 21 people do not know. (2) The need for an evaluation of the quality of training on an ongoing basis, the answer took 89% and 11% undecided.

Mapping Coaching Sports Achievements

Mapping is done through data collection activities against Indonesian National Sports Committee district/city and Province that foster achievement sport regularly and programmed. Logging output is obtained as follows:

Table 2. Mapping Coaching Sports Achievements

<table>
<thead>
<tr>
<th>No.</th>
<th>District / State / Province</th>
<th>Builder</th>
<th>Number of Branches Sports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kota Medan</td>
<td>Indonesian National Sports Committee</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>Tebing Tinggi</td>
<td>Indonesian National Sports Committee</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Asahan</td>
<td>Pengcab PBVSI</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Tapanuli Tengah</td>
<td>Pengcab PBVSI</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Sibolga</td>
<td>Indonesian National Sports Committee</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Padang Sidempuan</td>
<td>Indonesian National Sports Committee</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>T. Karo</td>
<td>Indonesian National Sports Committee</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Tobasa</td>
<td>Indonesian National Sports Committee</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Deli Serdang</td>
<td>Indonesian National Sports Committee</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>Tanjung Balai</td>
<td>Indonesian National Sports Committee</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Intensive Training Program</td>
<td>Indonesian National Sports Committee</td>
<td>27</td>
</tr>
<tr>
<td>12</td>
<td>Education Center and junior student exercise</td>
<td>Disporasu</td>
<td>11</td>
</tr>
<tr>
<td>13</td>
<td>Education Center and senior student exercise</td>
<td>Disporasu</td>
<td>4</td>
</tr>
</tbody>
</table>
Evaluation models are implemented

The survey results indicate that, the model evaluation is done by forming a team of monitoring and evaluation. Implementation mechanism based monitoring and evaluation instruments that vary from one region to the other. M & E orientation but not the quality control monitoring of symptoms that occur in the field incidental. Concept and evaluation model quality-oriented development in stages and do not sustainable. This means that the evaluation process is done sejadar meet the requirements in the management structure. It is a barrier at the level Indonesian National Sports Committee North Sumatra to exercise quality control. At the same time it shows that Indonesian National Sports Committee North Sumatra did not have a model in quality control exercise. Document quality exercise achievement is also not owned by the Sports Committee, this will be a barrier for Indonesian National Sports Committee districts / cities to develop and exercise quality control in the region.

DISCUSSION
Conceptual Model of quality Evaluation Exercise Sports Achievement

Evaluation of the quality of training is the work done by Indonesian National Sports Committee North Sumatra province in controlling quality sports training achievements. Model quality evaluation exercise carried out as a continuous process in an organization with the hope buffer control and guarantee the quality of sports coaching achievements and improved quality of continuous coaching. The conceptual model quality evaluation exercise described below;

Formulation Document Quality

Organization's quality assurance system carried out by the document / script / quality / books consisting of: (a) Manuscripts / documents / books Quality Policy, is a written document containing an outline explanation of how organizations understand, design and implement Quality Assurance in the administration of sports training services and implement Quality Assurance to realize a quality culture in the organization, (b) Manuscripts / documents / books Quality Manual or Quality Procedures, contains practical guidance on how, step by procedure on how SPM implemented, evaluated and improved quality on an ongoing basis by the responsible parties to implement in all organizations, (c) Manuscripts / documents / books Quality Standards, is a written document containing a variety of criteria, size, standard or implementation specification of all activities in the Sports Training organization to realize its vision and mission to be assessed in accordance with the provisions of the legislation kebermutuan so satisfying stakeholders internal and external to the organization, (d) Manuscripts / documents / books form / instrument, is a written document that serves to record / record things or information or a particular-activity as an integral part of quality standards, quality manuals or quality procedures

Quality Assurance

As the level of internal quality control materials, aimed at the implementation of good practice (good practice) for all resources in the implementation of quality improvement on an ongoing basis throughout the organization in Indonesia. This is done with the goal of maintaining and enhancing the quality of student training exercise run by an organization internally to realize the vision and meet the demands of the public about the needs of the organization and establishment of continuous quality improvement. In general, the purpose is the planning, implementation, control and development of the organization's quality standards consistently and continuously so have a product that has the athlete's global competitiveness.
To ensure the quality of the internal level it is necessary to set up the device by the Internal Quality Assurance managers in every organization in charge of guarding, maintaining and ensuring good practice across the organization have dilaksanaakan. Orientation insternal quality control is to internalize an internal quality culture in the organization.

**External Quality Control**

Quality control conducted by outsiders who aims to provide recognition of external stakeholders primarily as a measure of achievement levels kebermutuan each organization in Indonesia. For quality control is done by an independent agency stakeholders betukan objektiv conducted using instruments that are based on the document quality standards.

Implementation of quality control is carried out to determine the policy makers useful for managing organizational policies in Indonesia, bahwasannya means of assessment instruments such as the material for policy makers to determine the sustainability of organizations in Indonesia through accreditation.

In the implementation of quality assurance and control is done through evaluation techniques with instruments developed with reference to established quality standards on the quality of the document. Useful for internal quality assurance whereas internalization of quality culture quality control aimed at the provision of value in the target recognition of accreditation with outside parties such as stakeholders, stakeholders and society.

---

**Figure 1. Conceptual Model Quality Evaluation Exercise Sports**

**Model Development Handbook of Quality Evaluation Exercise Sports**

Handbook based on rigorous analysis and mapping requirements and conceptual models that have been done. Preparation of guidelines to be a reference made in developing quality standards of practice. Standard quality exercise berapilasi on national sports standards in the Law no. 3 of 2005 on National Sports System. Model development handbook quality evaluation exercise used as a guide in developing a quality document. Ledge-step model of the development of quality
evaluation exercise pandungan outlined in the book. This means that quality document preparation seperta quality standards, quality procedures, work instructions and quality control instruments based handbook has been prepared.

CONCLUSION
First, the level of understanding of the results of the survey organization committee olahraga achievement in general do not understand what, how, why and the meaning of the importance of continuous quality assurance. This needs to be given to the board understanding of the importance of quality in the process of exercise achievements. The need of the importance of quality evaluation found that in general say quality evaluation exercise is needed. It is important to implement a quality evaluation model of quality evaluation exercise.

Secondly, sports coaching achievements made in the existing North Sumatera although not uniformly across all districts of the city, but would be very good if the quality of coaching is controlled and continuously improved.

Third, the approach undertaken during this evaluation merely incidental and no follow-up also.

Fourth, the model should be designed quality evaluation exercise which berorientasi continuous quality improvement by implementing good practices through internalization of quality culture and recognition from outsiders.

Fifth, manual quality evaluation model development exercise that prepared the document used as a basis in developing the quality of such training quality standards, quality procedures, work instructions and quality instruments.

REFERENCES


Certificate
AFICSST 2014
Asean Forum and International Conference on Sport Sciences and Technology
Bali, August 8-11th, 2014

Organized by:
The Deputy Assistant for Sport Sciences and Technology,
Deputy Minister for Elite Sports Enhancement
The Ministry of Youths and Sports Affairs,
The Republic of Indonesia

This is to certify that:

Imran Akhmad

has participated in the AFICSST Conference
As:
Presenter

Bali, 10 August 2014
Deputy Minister for Elite Sport Enhancement

Prof. Dr. Djoko Pekik Irianto, M.Kes. AIFO