

## The Development of Website-Based Training Program Planning

Ibrahim<sup>1</sup>, Syahputra Manik<sup>2</sup>, Indra Kasih<sup>3</sup>

<sup>1,2</sup>Department of Sports Coaching Education, Faculty of Sport Science, Universitas Negeri Medan, Indonesia

<sup>3</sup>Department of Physical Education and Recreational Health, Universitas Negeri Medan, Indonesia

[ibrahockey@yahoo.com](mailto:ibrahockey@yahoo.com), [Putramanik@unimed.ac.id](mailto:Putramanik@unimed.ac.id), [indrakasih@unimed.ac.id](mailto:indrakasih@unimed.ac.id)

### Abstract

*The purpose of this research is to create a sports training program planning website so that it can make it easier for sports coaches to make training programs in a structured and systematic manner. In addition, this website is also a media for students to improve their abilities in making and planning sports training programs, so that FIK Unimed graduates can compete in the world of coaching, especially in North Sumatra. The research method used is research and development (R&D) by design development research proposed by; Borg and Gall, This research and development uses a qualitative approach and uses research & development (R & D) research methods. The instruments used in this research and development are a). Examine the experts (expert judgment). Validation from material experts shows an assessment result of 83% which means that website development is feasible. Meanwhile, media experts showed an assessment result of 81.25%. In the small group trial, as many as 80% of respondents answered the range of values between 80-100% which was included in the feasible category.*

### Keywords

development; website; program; exercise



## I. Introduction

One important aspect of supporting the success of sports achievement is the existence of a good training program, and compiled by coaches who understand the training process starting from the stages of general preparation, special preparation, pre-competition and the main competition for achieving peak achievement. Training planning is intended to direct training with very specific objectives, in other words, training planning is a planned training guide towards the best performance in a competition, the peak performance which is expected to increase the performance or appearance of an athlete by maximizing physiological adaptation, technique and strategy as well as other factors. psychological factors.

If you look at the condition of trainers in Indonesia from the regional to the national level, it turns out that there are still many trainers who are constrained in preparing and making training programs, this has an impact on the less than optimal training plan so that the targets to be achieved in a competition are not optimal. To support the success of improving performance, especially the trainer's understanding in designing an exercise program, it is necessary to conduct training for program development or through formal channels.

Sports training is also one way to improve a coach's ability to create and design training programs. However, there have been many and almost every year trainings have been carried out, but there are still many who have not been able to design training programs according to the stages or phases of training so that the desired achievements are not obtained.

In 2024, North Sumatra will host the National Sports Week (PON) together with the Province of Nangro Aceh Darussalam. To prepare superior human resources in the field of coaching, the Faculty of Sports Science (FIK) Unimed which is one of the sports majors in North Sumatra must play a full role in providing human resources for trainers. For this reason, breakthroughs are needed to accelerate the achievement of reliable quality graduates who can compete in the world of coaching. One way to accelerate to improve graduates is to familiarize students with making and practicing how to train well and one of the most important things for students to master is how to plan training programs and how to implement them.

## II. Review of Literature

### 2.1 Model Development Concept

Sugiyono in his book defines "development research is research that is used to produce certain products, and test the effectiveness of certain products". The product developed by the researcher will later be used in the small game process. Before being used in the small game process, the product developed must of course go through a validation stage to find out whether the game is feasible or not to continue to the research stage.

Research development is a process or steps to develop a new product or improve an existing product, which can be accounted for. This means that research development designs are always oriented towards developing or producing products. In developing a new product or an existing product, it must be based on the needs of the subject under study.

Broadly speaking, research and development, starting with research on a small scale that is biased in the form of data collection related to the problems faced and to be solved, the results of initial research are used as the basis for developing a product, in the development process researchers continue to make observations, especially in the testing process. try the product. What is produced is tested in the field and then revised until the results are satisfactory.

According to Sukmadinata, 2005 research and development is a process or steps to develop a new product or improve Research and development (Research and Development). Research and development (research and development / R & D) according to Sugiyono, 2010 is a research method used to produce certain products, and test the effectiveness of these products.

Development research is researchan approach that is linked to work design and development and aims to design in a training environment and seek to understand scientific fundamentals. Development research is not to detail and implement a complete intervention but is aimed at providing motivation to learn by presenting interesting and creative exercises.

Research development is a cycle that begins with the existence of a need and requires a solution by using a particular product. Development research (development research) find patterns, growth sequences, changes and especially have the intention of developing teaching materials for schools. Examples of the development of teaching materials are textbooks, teaching aids, exercise modules and so on. Development research is research that is not used to test theory, but what is produced is tested in the field and then revised until the results are satisfactory.

The research development process is circular in nature starting from the activities of analyzing, designing, evaluating and revising to the desired goal. Thus, it can be concluded that development research is a research based on making an effective product, starting with needs analysis, product development, and product testing. In this case, the research that will be developed is the development of sports training program planning website.

## 2.2 Website

Website is a collection of several web pages where information in the form of text, images, sound, etc. is presented in hypertext form and can be accessed by software called a browser. Information on a website is generally written in HTML format. Other information is presented in the form of graphics (in GIF, JPG, PNG, etc.), sound (in AU format, WAV, etc.), and other multimedia objects (such as MIDI, Shockwave Quicktime Movie, 3D World, etc.). Website is an internet facility that connects documents locally and remotely. Documents on the website are called web pages and links on the website allow users to move from one page to another (hyper text), both between pages stored on the same server or servers around the world. Pages are accessed and read through a browser such as Netscape Navigator or Internet Explorer various other web browsers. (Judge Lukmanul. 2004: Smart Ways to Master Layout, Design, and Website)

## 2.3 Exercise Program Planning

Sukadiyanto (2005: 40) "Planning an exercise program is the process of planning and compiling material"weights, targets and training methods at each stage that will be carried out by each athlete. Every training process in sports always requires an exercise program that is both physical and skill. According to Bomba (1995) as is the case with most human endeavors, training must be well organized and planned so as to ensure the achievement of training objectives. So the training planning process shows something that is well organized, methodologically and according to scientific procedures so that it can help athletes to achieve better results based on their training or achievements. Therefore planning is a very important tool used by a trainer in an effort to direct a well-organized training program. Physical education as part of sports has not been able to fulfill its role until now (Arsani, 2020). Physical activity is an inseparable part of the life of living things, ranging from simple to very complex activities (Sulaiman, 2020). The learning process of a subject, especially physical education both theoretically and practically, requires a learning model that will facilitate teachers to transfer their experience and knowledge to their students (Suryono, 2020).

Bompa (2015) to make planning efforts effective, a trainer must have professional skills and have experience at a high level. The preparation of the training program plan reflects the knowledge and experience possessed with coaching sciences and consideration of the potential that exists in athletes, acceleration of achievement development, advice, and available infrastructure.

In training periodization, the trainer can carry out long-term training plans that systematically and manipulatively control and vary the volume, intensity, frequency, duration of training and competition. Thus, periodization is the elaboration of the material and training objectives by varying the intensity, volume, recovery, internal, duration, and frequency within a certain time according to the stages.

The steps (limitations) in designing an exercise program plan that need to be considered by a coach for his athletes so that the goals can be achieved include the following:

1. Determine the main competition (When?)
2. Counting the amount of time available
3. Unit (weekly)

In detail, Dikdik Zafar Sidik 2019 describes the steps in designing and compiling the training period as follows:

1. Conduct initial tests and process initial test data to determine the volume and intensity line points, as well as the athlete's current condition (performance) line when starting training.
2. Determine when to start training and competitions that will be made top achievements (including intermediate goals)

3. Calculating the amount of time available until H . day
4. Define training and competition calendars
5. Determine the objectives of the training aspect and its achievement
6. Determining the Stages of training based on the amount of time available and the cycle of achievement (Mono-Bi-Multi)
7. Determine biomotor stages and techniques and tactics
8. Determine parameter tests and medical tests
9. Specifies the % volume, intensity, and performance lines.

One training periodization or training stage (training plan from the start of training to competition day) consists of:

- a. The Preparation Stage (TP) consists of:
  - General Preparation Stage (TPU)
  - Special Preparation Stage (TPK)
- b. The Competition Stage (TK) consists of:
  - Pre-Competition Stage (Competition/Competition) (TPP)
  - Main Competition Stage (TPUt)
- c. The Transition Stage (TT) is also called the Recovery stage

Exercise planning is divided into several stages of training. This stage is an organized division on a regular basis. The training program can be designed in three stages, namely, long-term, medium-term, and short-term plans. Long-term training program (long term planning), the time is between 5 to 12 years. Medium term training program (medium term planning), the time is between 2 to 4 years. Short term training program (short term planning), the time is for one year. To achieve maximum performance, it takes a relatively long training time.

### III. Research Methods

The research method used is research and development (R&D) with a development research design proposed by; Borg and Gall, This research and development uses a qualitative approach and uses research & development (R & D) research methods. The instruments used in this research and development are a). Examine the experts (expert judgment). b). Small group try-out. c). Field trial (field try-out). This research was conducted in three stages, namely:

#### Stage 1

1. Conduct research and collect data for initial research or needs analysis (need easement) on 20 PKO FIK Unimed students who take training program planning courses.
2. Development planning is done by setting goals, limiting the scope, and preparing a pilot plan.

#### Stage 2

3. Develop the initial product, which is then evaluated by 1 expert in coaching and 1 media expert (validating the content and appearance of the website).

#### Stage 3

4. Small group trial, using 15 subjects of PKO FIK Unimed students who took training program planning courses.
5. Product revision (according to the results of the analysis on small group trials).

## IV. Discussion

### 4.1 Potential and Problems

The research departs from the potential and problems, the potential problems raised in this study are the growing development of science and technology, the potential to become increasingly promising professional trainers, but Unimed Training Education graduates have not been able to compete with graduates from other universities. In the field of coaching, especially physical trainers (Strength and Conditioning) in making exercise programs. This website is designed to be able to overcome existing problems, so that it can help graduates of Sports Coaching Education in designing training programs.

### 4.2 Information Gathering

Following up on potential problems, the next step is to find information in the community, especially the provincial administrators for sports. Based on the observations made, there is no website for the creation and planning of sports training programs either through the WEB, PC website or based on Android. Therefore, the researcher intends to develop a website for planning sports training programs.

### 4.3 Product Design

Website planning is done using *wordpress platform* by taking steps in planning an exercise program from book sources. The website created has a simple appearance with a menu that is easily understood by users so that it is easy to use.

### 4.4 Expert Validation

Design validation is an activity process to assess whether the product design will be more effective than the old one or not (Sugiyono, 2013:302). The products of this research are evaluated by experts or experienced experts to assess new products designed to find out their weaknesses and strengths. This development research obtained design validation by two experts, namely:

#### a. Material Expert

The material expert in question is a sports lecturer whose role is to determine whether the website developed is in accordance with applicable rules. Material experts assess aspects such as the feasibility of the tool, to determine the quality of the material and the completeness of the training program planning. In this study, the material test was conducted by Siti Rahima Gultom, M.Pd. The material test was carried out to test the content of the material and the feasibility of the training program planning website. The results of the material tests carried out can be seen in the table below:

**Table 1.** Material Expert Feasibility Test Results

Name	Number of Items	Acquired Value	Ideal Value	Eligibility Percentage
Material Expert	13	43	52	83%

Based on the results of the feasibility test with material experts, of the 13 questions given, the percentage for material experts is 83%. After obtaining the percentage of eligibility, it is consulted with the specified eligibility category table. With these results, it is stated that the Exercise Program Planning Website is declared very feasible to use.

### b. Media Expert

Media experts in question are experts who can handle website creation and development. Media experts assess the physical aspects in the form of appearance and grammar. The media test was carried out on media experts who in this study were Ramlan Sahputera Sagala, M.Pd. The results of the media expert feasibility test can be seen in the table below:

**Table 2.** The Results of Media Expert Feasibility Test

Name	Number of Items	Acquired Value	Ideal Value	Eligibility Percentage
Media expert 1	12	39	48	77%

Based on the results of the feasibility test with the two media experts, from the 12 questions given, the percentage for the first media expert was 77% and the second media expert was 83%. After obtaining the percentage of eligibility, it is consulted with the specified eligibility category table. With these results, it is stated that the Exercise Program Planning Website is declared very feasible to use.

### c. Design Revision

After the product design is validated through discussions with experts and experts, the weaknesses of the product will be known. Furthermore, improvements are made to minimize the weaknesses of the product. The results of the validation test from material and media experts, suggestions given then the researcher revised the product used.

### d. Small Group Trial

Small group trials were conducted with Unimed PKO students who had passed the Training Program Planning course. In this small trial, respondents assess the feasibility of the website and provide suggestions for improvement by researchers. The results of the small group trial were 15 respondents. A description of the results of research on the development of a sports training program planning website can be seen in the table below:

**Table 3.** Website Development Results Small Group Trial Training Program Planning

No	Interval	Predicate	Frequency	Percentage (%)
1	81%-100%	Worthy	12	80
2	61%-80%	Decent enough	3	20
3	41%-60%	less worthy	0	0
4	<40%	Not feasible	0	0
Amount			15	100

Based on the results of the small group trial, from 15 respondents, 80% (12 students) stated that they were worthy, 20% (3 students) stated that they were quite feasible, and there were no students who stated that they were not worthy and not worthy.

### e. Small Group Trial Product Revision

After testing the product in a small group, the shortcomings will be known, then the next product revision is carried out to improve the feasibility and quality of the website to be used and accessed.

## IV. Conclusion

The results of the research on the development of website-based sports training program planning are feasible to use as a means to facilitate trainers in creating and compiling training programs.

## References

- Ali Maksum. (2012). *Metodologi Penelitian dalam Olahraga*. Surabaya: Unesa University Press.
- Arikunto, Suharsimi. 2006. *Prosedur Penelitian Suatu Pendekatan Praktik Edisi Revisi*. Jakarta: Rineka Cipta
- Arsani., et.al. (2020). Differences in Motivational Orientation in Physical Education in terms of Gender Differences. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal Vol 3 (3): 1428-1434*.
- Bompa, Tudor O. 1990. *Theory and Methodology of Training; the Key to Athletic Performance*. Dubuque, Iowa: Kendall/Hunt Publishing Company
- Borg, W.R. dan Gall, M.D. 1989. *Educational Research: An Introduction, Fifth Edition*. New York: Longman
- Dikdik Zafar Sidik. 2019. *Pelatihan Kondisi Fisik*. Bandung: Remaja Rosdakarya
- Harsuki.2003. *Pengembangan Olahraga Terkini: Kajian Para Pakar*. Jakarta: PT. Raja Grafindo Persada
- HM, Jogiyanto, 1999, *Analisis dan Desain Sistem Informasi : Pendekatan Terstruktur Teori dan Praktek Website Bisnis*, ANDI Yogyakarta, Yogyakarta
- Lankor. 2007. *Teori Kepelatihan Dasar*. Jakarta: Penerbit Kementerian Negara Pemuda dan Olahraga
- Lubis, Johansyah. 2013. *Panduan Praktis Penyusunan Program Latihan*. Jakarta: Raja Grafindo Persada
- Matthew Y.W. Kwan , Denver M.Y. Brown (2021) *Application of the Multi-Process Action Control Model to Predict Physical Activity During Late Adolescence*. *Journal of Sport and Exercise Psychology Volume 44: Issue 1 P. 35–41*
- Nana Syaodih Sukmadinata. 2010. *Metode Penelitian Pendidikan*. Bandung: PT Remaja Rosdakarya
- Setyosari, Punaji.2015. *Metode Penelitian Pendidikan dan Pengembangan Edisi ke Empat*. Jakarta: Prenadamedia Group
- Suharno. (1985). *Ilmu Kepelatihan Olahraga*. Yogyakarta : FPOK IKIP Yogyakarta.
- Sugiyono. 2015. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.
- Sulaiman, Khamidi, A., and Mintarto, E. (2020). The Evaluation of Athletic Extracurricular Management of Dr. Soetomo and Jalan Jawa Junior High School in Surabaya. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal Vol 3 (1): 11-19*.
- Suryono, Mahardika, I.M.S., and Tuasikal, A.R. (2020). *Pride Learning Model in Order to Improve the Physical Fitness of Indonesian Naval Academy Cadets*. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal Vol 3 (1): 235-243*.
- Sutopo, A. H. (2003). *Multimedia Interaktif dengan Flash*. Yogyakarta: Graha Ilmu.