Learning Media Development Artistic Gymnastic Handspring Motion on the Vaulting Table

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Abstract: This research aims to produce a product training videos and guidebooks learning media motion handspring techniques on the vaulting table and determine the feasibility of products that can be used by coaches, athletes, and sports teachers. Research method used is Research and Development. Small group trial on 7 respondents, large group trials 16 respondents. Respondents are athletes and coaches at the *Selabora* gymnastics club Faculty of Sport Science, Yogyakarta State University., The instrument used were valuation sheet, and assessment scale questionnaire. Evaluation data is in the form of qualitative descriptive and quantitative. Results of data analysis on research "Learning Media Artistic Gymnastics Handspring Motion on The Vaulting Table" is a percentage of 84.61% respondents stated learning media "Very Appropriate" and 15.38% of respondents said the learning media was "in accordance". Overall regarding material aspects and product design obtained an average score of 4.5 or 90.9% of respondents stated "Very Appropriate".

1 INTRODUCTION

Gymnastics is one type of sport requiring a set of systematic physical movements put together to form and develop personalities harmoniously. The word gymnastics (English) or senam (Bahasa Indonesia) originated from the word "Gymnastiek" (Muhajir, 2006). The name gymnastiek derives from the ancient Greek "gymnos" which means nudity. In the old days, gymnastiek was performed half-naked to avoid any potential problems while practicing movements. The international artistic gymnastics is governed by Federation Internationale de Gymnastique (FIG) while Indonesian artistic gymnastics is under Indonesian Gymnastics Association (PB PERSANI).

The apparatus being involved in artistic gymnastics competition is as follows (Aka, B. A., 2009):

(1) Men's artistic gymnastics, involving six competitive apparatus: *(a)Floor Exercise, (b)Rings, (c)Pommel Horse, (d)Parallel Bars, (e)Horizontal Bar, (f)Vaulting Table.*

(2) Women's artistic gymnastics, involving four competitive apparatus: *(a)Vaulting Table, (b)Uneven Bars, (c)Balance Beam, (d)Floor Exercise.*

Basic moves in floor exercise should be introduced early (Margono. A, 2009). As flexibility is extremely needed in gymnastics, it is important to introduce floor exercise to make sure muscles and joints are ready and flexible. During training, coaches need to not only be creative but also know which learning media are best for their athletes. Understanding and assigning the right learning media for each of the athletes will help coaches create fun training experiences, making it easier to teach some basic techniques to the athletes. Exciting training will potentially attract gymnasts, making them fall in love with the sport as well as motivating them to master basic and advanced techniques well.

The presence of media in the process of learning is essential. Media help students see abstract concepts and understand complex ideas. In addition, learning media also help coaches reduce complex verbal communication. In short, media help concrete abstract matters and, therefore, help athletes understand them.

Using media in teaching and learning process can motivate new enthusiasm and interests, boost learning motivation, and influence students' psychologically (Arsyad. A., 2010). Using media during the orientation phase of learning not only makes the process more effective but also facilitate

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knowledge transfer right at the moment. In addition to motivating students' interests, learning media provide engaging, reliable data and help students understand subject materials more easily, interpret data, and compress information.

In artistic gymnastics learning, learning media not only enable students to discover the joy in coaching and training but also attain learning objectives. According to Gagne & Brings, "Teachers, as well as teams of instructional designers, may carry out a comprehensive design of instructional which depends upon the selection of media" (Mu'adin. I., 2009).

Numerous training processes in Yogyakarta were observed and, referring to the results, not all artistic gymnastics coaches used learning media as an aid to create effective message transfer to the athletes. In addition, it was found that coaches were lacking of references due to limited to no Indonesian version of videos or books about artistic gymnastics, handspring moves on vaulting table in particular.

After observations, it was found that some coaches still relied on traditional teacher talking approach, making it hard for athletes to concentrate, grasp, and understand the messages during the process of learning. As a result, it was harder for them to acquire the trained skills and techniques. Besides, relying solely on teacher talking approach caused difficulties among athletes to master basic moves in artistic gymnastics, particularly handspring moves. Without creativity, the process of learning would demotivate the athletes and lower their performance.

It is expected that the development of learning media for handspring moves over vaulting table can help coaches to conduct fun training for athletes as the products are in form of training video and guidebook. The video, which can be accessed via Youtube, shows not only steps in practicing handspring moves over vaulting table but also names and samples of the moves. The guidebook, on the other hand, serves as complementary learning media in practicing handspring moves over vaulting table and provides definitions and pictures of each movement.

As a reference for coaches in conducting training, the guidebook can help coaches to understand each movement before training. In addition, the guidebook can also help athletes in learning as the book provides readers with definition and types of gymnastics including artistic, rhythmic, acrobatic, aerobic, trampoline, and general gymnastics. Reading the book and watching the video help athletes to master the materials delivered by the coach in both practice and theory. In short, the right use of media in learning handspring moves on vaulting table can help coaches solve problems in coaching and training.

2 RESEARCH METHODS

This research was a research and development study which, one type of study method to create certain products and ensure effectiveness of the products (Sugiyono, 2011). In short, research and development is a learning process which aims at developing new products or improving existing products in the process of training and learning.

2.1 Time and Place

This research was conducted in Eastern Gymnastics Hall of Sports Science Faculty of Universitas Negeri Yogyakarta (FIK UNY), Caturtungal, Depok-Sleman, Yogyakarta 55281. This place belonged to Gymnastics School and Laboratory (*Selabora*) FIK UNY and was used by gymnasts in Sleman regency and Yogyakarta city to practice artistic, rhythmic, and aerobic gymnastics. Started in March 2019 and ended in April 2019, this research began with collecting data and information as well as discovering problems in the field.

2.2 Subject

This research involved artistic gymnastics coaches and athletes practicing at Gymnastics School and Laboratory (*Selabora*) of Sports Science Faculty, Eastern Gymnastics Hall of Universitas Negeri Yogyakarta. Respondents belonged to *PERSANI* Sleman and *PERSANI* Yogyakarta.

2.3 Instrument

Data collection is required to gather data or information for research purposes and a successful data collection needs research instrument. Instruments are tools to measure natural or social phenomena on a topic of interest (Sugiyono, 2011).

This research adopted questionnaires, both open-ended and close-ended. Using open-ended questionnaires, researchers attempted to collect feedback from samples; meanwhile, the use of close-ended questionnaires allowed research subjects and material and media experts to select from a set of pre-defined responses. In this research, questionnaire was basically used as a tool to collect quantitative

data on media feasibility level as a basis for product revision.

2.4 Analysis Technique

After collection process, data were processed and analyzed both qualitatively and quantitatively. For product improvement purpose, feedback from material and media experts was processed using qualitative technique.

To validate data collected from observation of coaches and athletes as well as training videos and guidebook on handspring on vaulting table in artistic gymnastics, five types of response were provided, including "SS" for "Absolutely Appropriate" which scored 5 (five), "S" for "Appropriate" which scored 4 (four), "KS" for "Slightly Inappropriate" which scored 3 (three), "TS" for "Inappropriate" which scored 2 (two) and "STS" for "Absolutely Inappropriate" which scored 1 (one). This analysis technique is known as *Likert* scale technique. The formula used in calculating the percentage is as follow:

$$\text{Percentage} = \frac{\Sigma \textit{ score from respondents' responses}}{\Sigma \textit{ ideal score of all items}} \text{ x } 100\% \quad (1)$$

The percentage was then classified into categories. The classification was based on scoring standards (PAP). To convert raw score into categories using PAP, researchers first need to set scoring criteria and their limits as presented in the table below:

Table 1: Score conversion guidelines (sugiyono, 2011).

Score Range	Criteria
80% to 100%	Very feasible/effective
70% to 79%	Feasible/effective
60% to 69%	Somewhat feasible/effective
45% to 59%	Less feasible/effective
<44%	Extremely not feasible/effective

3 DISCUSSION

There were two products being examined in this research entitled "Learning Media for Handspring on Vaulting Table Moves in Artistic Gymnastics" including "Handspring Moves on Vaulting Table in Artistic Gymnastics Video" and "Handspring Moves on Vaulting Table in Artistic Gymnastics Guidebook". The video showed ways to train handspring moves on vaulting table. The practices included, for example, running drills which consisted of hurdle and board drills, handstand, handstand straighteners and tightness into the table, flight, and finishing. The guidebook consisted of several chapters. Chapter 1 of the book discussed the definition, history, and development of gymnastics in Indonesia, types of gymnastics, definition of artistic gymnastics, artistic gymnastics equipment terminology, and definition of handspring. Chapter 2, on the other hand, contained guidelines on practicing handspring move on vaulting table which consisted of six stages similar to those presented in the video. In the last chapter, Chapter 3, conclusion and recommendation were presented.

According to Mas Wantanabe and Steve, mastering handspring over the vaulting table moves is obliged before gymnasts can master other more complex moves as it helps them develop and improve their techniques. The main components in handspring over the vaulting table included fast running, jumping onto the springboard, bouncing off the springboard, rebounding into the air on its way to the vault table, and hitting the table. All can be improved by practicing handspring techniques well. Looking at the importance of handspring moves on vaulting table mastery, it is necessary to develop media such as video and guidebook for learning handspring moves over vaulting table.

The learning media being developed is an innovation in artistic gymnastics training, particularly in handspring on vaulting table moves, which can be used by the gymnastics clubs. "Learning Media for Handspring on Vaulting Table Moves in Artistic Gymnastics" is excellent as it has 2 products that can be used independently or simultaneously. Video makes gymnastics learning easier as well as more interesting compared to lecturing or talk-based training. Therefore, athletes can have more positive attitude and interests towards the training. Guidebook, on the other hand, is simple and compact. Besides, it also provides knowledge on the types of practice and details of artistic gymnastics.

Once the products were ready, they were validated by a group of experts consisting of material and media experts as well as sent for small group test and field test. After the test, it was known that "Learning Media for Handspring on Vaulting Table Moves in Artistic Gymnastics" were classified into "Absolutely Appropriate" category. The products scored 95% (Absolutely Appropriate) in the validation process by material experts and 88.5% (Absolutely Appropriate) in the validation process by media experts. In small group test, the products

scored 85.8% with an average score of 4.2 % (Absolutely Appropriate) while in field test, they scored 90.0% with an average score of 4.5 (Absolutely Feasible). Results of the field test indicated that the products were highly effective for learning.

4 CONCLUSIONS

Products resulting from this research in the development of "Learning Media for Handspring on Vaulting Table Moves in Artistic Gymnastics" can be used as learning media in artistic gymnastics training to make learning of handspring moves on vaulting table easier. Results of data analysis indicated that artistic gymnastics athletes and coaches at *Selabora* UNY Gymnastics Club perceived "Handspring Moves on Vaulting Table in Artistic Gymnastic Training Video" and "Handspring Moves on Vaulting Table in Artistic Gymnastic Guidebook" as feasible and appropriate as seen from material, language, interface, and application aspects. The test results showed that, for 84.61% respondents, the media were "Absolutely Appropriate" while for the rest 15.58% respondents, they were "Appropriate". In regards to material and product design aspects, the average score was 4.5 and 90.9% respondents considered them as "Absolutely Feasible".

REFERENCES

Aka, B. A., 2009. *Cerdas dan Bugar dengan Senam Lantai*. Gramedia PT. Widiasarana Indonesia. Jakarta.

Mu'adin, I., 2009. *Pengembangan Media Pembelajaran Berbasis Komputer Untuk Mata Pelajaran Pendidikan Kewarganegaraan SMP*. Tesis. Program Pascasarjana UNY.

Muhajir, 2006. *Pendidikan Jasmani Teori dan Praktik*. Erlangga. Jakarta.

Sugiyono, 2011. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. CV Alfa Beta. Bandung.