

Developing of Basic Motion Techniques of Rhythmic Gymnastic by Freehand Series Audiovisual-based for Children Age 7-11 Year

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Abstract: This research aims to produce a product in the form of basic motion of rhythmic gymnastics by freehand series of audiovisual-based which can be used as a new method in basic technique learning for children age 7-11 years. The research method used was Research and Development. Instruments used to collect the data were questionnaire of assessment scale and evaluation sheet. Data evaluation results show in the form of descriptive quantitative and qualitative. The quantitative data were collected through questionnaires or product trial questionnaires and analyzed by descriptive quantitative analysis, while the qualitative data was obtained through expert validation activities and pilot activities in the form of inputs, responses, criticisms and suggestions. The results of the assessment obtained through expert validation and testing were processed by way of presenting. The percentage results were then interpreted with qualitative sentences. Feasibility assessment of basic motion of rhythmic gymnastics by freehand series of audiovisual-based for children age 7-11 years can be seen from the validation of material experts of 93.75% (very appropriate) and media experts of 88.89% (very appropriate). The main field trial results obtain an assessment of 98.3% (very appropriate). Product in the form of audiovisual learning media is used to support rhythmic gymnastics exercise age 7-11 years. The product is constructed with a series of freehand and part motion (slow motion) with annotations. The selection of motion is based on Code of Point 2017-2020 from FIG.

1 INTRODUCTION

Gymnastics is a sport which includes physical exercises with movements that require flexibility, with or without music. In addition to its health-related purpose, gymnastics is also practiced for competitive purpose under the Federation *Internationale de Gymnastique* (FIG). Gymnastics disciplines include: 1) General, 2) Artistic, 3) Rhythmic, 4) Trampoline, 5) Aerobic, and 6) Acrobatic Gymnastics (FIG, 2017). There are several gymnastics disciplines in Indonesia gymnastics competitions including rhythmic, men's artistic, women's artistic, and aerobic gymnastics. Rhythmic gymnastics in Special Region of Yogyakarta (DIY) Province has not been fully developed. DIY's achievement in rhythmic gymnastics in national level competition is still poor. Despite regular participation in annual competition, within the last 5 years, DIY's achievement in national level artistic gymnastics competition has not showed any significant improvement. In several annual events such as *POPNAS* (National Student

Sports Week), *O2SN* (National Student Sports Olympic), and National Championship, DIY's performance was stagnant. The province even failed to send its rhythmic gymnastics athletes to compete in the prestigious event of the 2016 *PON* (National Sports Week) in West Java. Similarly, in the 2017 National Championship held in December, none of DIY's athletes were sent to compete. The lack of participation in regency/municipality level is the reason behind this stagnation. From 5 regencies/municipality in the province, only 3 of them participated consistently in regional level championships such as *O2SN*, *POPDA* (Regional Student Sports Week), *Kejurda* (Regional Championship), *PORDA* (Regional Sports Week), and many more.

After conducting a preliminary study, researchers found that the lack of supporting facilities for training and unideal learning media were the main cause of this problem. There was also no video showing the process in learning movement techniques clearly on YouTube. If any, the videos did not meet the criteria set by FIG. Researchers

selected YouTube since the platform has been being accessed widely by people, including children, these days. Statistics show that in January 2018 YouTube was accessed by 43% of Indonesian social media users per month. Data indicate that children at younger ages have not been engaged in social media, but were often found watching videos on YouTube.

Early childhood is in fact a golden period to develop children's abilities. During this Golden Age, children rapidly develop not only suppleness or flexibility in their body, but also their brain (as the center of consciousness) as well as their sensory and balance organ. This is the right time to start intervention that helps them grow. In the age of 7 through 11, most children are ready to start learning both in and outside school.

According to Piaget's theory, children between the ages of 7 and 11 are in concrete operations stage. They develop systematic thinking skills but only limited to concrete objects or activities. During this stage, children start thinking about objects in their surrounding logically and acting mentally based on real situations. Children in this stage begin to develop another set of skills namely System of Operation that helps them coordinate thoughts and ideas with certain events into their own thinking. Therefore, referring to Piaget's theory, children aged 7 to 11 years need concrete objects to learn and practice.

To be a good athlete, someone ideally needs to undergo long, gradual process of training. Rhythmic gymnastics training at Selabora UNY, however, was conducted only 3 to 4 times a week. Children's absence during training session was another challenge that makes training process not maximum. In fact, an athlete usually needs 2 to 3 months to master a gymnastics element properly. At the same time, children need to master 3 to 6 elements in a full sequence. It is obvious that the lack of training hinders children's skill development. To cope with this, they need to practice independently. Unluckily, they lack of learning source or media that can be used as a model. Results of triangulation in need analysis regarding learning source or media conducted in form of students, teacher, and parents interviews indicated that video for learning techniques for freehand basic moves in rhythmic gymnastics should be made simple. This is to help children practice either in the gymnasium or at home. Freehand sequence was selected since this was the most basic sequence for children. There are five apparatus in rhythmic gymnastics including ball, rope, club, ribbon, and hoop. However, before children can use these five pieces of equipment in

gymnastics, they had better master freehand gymnastics first to make sure they have the skills needed for basic moves. This video provides explanation and details regarding basic techniques in the sequence.

It is expected that the existence of these media can help beginners practice independently at home as well as stop being dependent on the coach at the gym. In short, these learning media support children in skill mastery and make learning process at the gym easier as children have been able to practice the movements more easily.

2 RESEARCH METHODS

2.1 Research Types

This research was a Research and Development study. Adopting and adjusting Sugiyono's 13 research stages, there were 10 stages involved in this research to attain the objectives of this research and development. Questionnaire and evaluation sheet were used as data collection instrument.

2.2 Research Time and Place

Research was conducted from 15 to 16 of May 2018 at Gymnastics Hall of FIK (Sports Science Faculty) UNY.

2.3 Research Subjects

Subjects of this study were classified into two groups, including:

2.3.1 Experts as Subject of the Study

(1) *Material Experts*: they were lecturers, coaches, or experts in rhythmic gymnastics whose role was to decide whether or not this audiovisual-based material for learning basic freehand techniques in rhythmic gymnastics has been deep and accurate enough. (2) *Media Experts*: they included professionals who were expert in learning and training media.

2.3.2 Subjects for Product Testing

A total of 15 children joining in Selabora UNY Gymnastics Club participated in this study. They were selected using a purposive sampling method which, is one sampling technique in which subjects are chosen based on several characteristics

(Sugiyono, 2015). Considerations in selecting subjects of this research were children's age (7 to 11 years of age) and their participation in Selabora UNY gymnastics club.

2.4 Research Instrument and Data Collection Technique

Research instrument as tools to measure, observe, and obtain quantitative data (Sugiyono, 2015). In this research, questionnaires were distributed for data collection purpose.

The data collected for media development purposes in this research involved both quantitative and qualitative data. Qualitative data were collected from evaluation of media to improve the quality of the products; meanwhile, quantitative data were scores obtained from the questionnaires filled in by experts and children.

2.4.1 Data Obtained from Material Experts

Examining the quality of the product as seen from content and design of the audiovisual materials for developing basic techniques in freehand moves in rhythmic gymnastics for children aged 7 to 11 years practicing gymnastics at Selabora UNY Club.

2.4.2 Data Obtained from Media Experts

Reviewing the quality of quality interface, programming, and legibility of the products being developed in delivering contents.

2.4.3 Data Obtained from Children

Examining the quality of the product as seen from children's interests in the media. Data were used to analyze attractiveness and accuracy of the materials and as references to improve product quality.

This research and development adopted both open-ended and close-ended questionnaires. Open-ended questionnaires were used to obtain feedback from the samples while close-ended questionnaires were distributed so that subjects and experts can select from a set of pre-defined responses. The objective of questionnaire distribution was to obtain numerical data related to feasibility of the media as the basis for revising the products.

2.5 Data Analysis Technique

The data resulted from the test were classified into two groups including quantitative and qualitative data. Quantitative data were assessment of the

variables collected using questionnaires. Meanwhile, qualitative data were feedback from material and experts and students collected for improvement of the product.

Data in this research and development were analyzed using descriptive analysis technique and presented in percentage. Meanwhile, feedback and reasons for selecting responses were analyzed using qualitative analysis technique.

Likert scale was adopted for measurement and computing quantitative data purpose. *Likert* scale measures individual's or group's attitude, opinions, and perceptions towards social phenomena. In this research, researchers used a 4-point *Likert* scale: "Strongly Agree", "Agree", "Disagree", and "Strongly Disagree" (Sugiyono, 2015). The percentage results were then interpreted and classified into categories as presented below:

Table 1: Classification of the percentage

Percentage	Interpretation
76-100 %	Very Appropriate
51-75 %	Appropriate
26-50 %	Inappropriate
0-25 %	Very Inappropriate

3 RESULTS AND DISCUSSION

3.1 Results

3.1.1 Data Validation by Material Expert

Learning media material in this research was validated by a material expert, Ch. Fajar Sriwahyuniati, a lecturer of Gymnastics subject at Sports Science Faculty Universitas Negeri Yogyakarta who is also the Chairperson of PERSANI Sleman, DIY.

Data were collected using questionnaire and covering material content. Prior to filling in the questionnaire, material expert watched freehand basic move techniques in rhythmic gymnastics for children aged 7 to 11 years video together with researchers. During validation process, expert asked researchers direct questions regarding the learning media being developed.

Assessment by Material Expert was conducted in 2 stages, including:

(1) Assessment by Material Expert Phase I: Phase I assessment was conducted on April 16, 2018 at Sports Science Faculty of Universitas Negeri

Yogyakarta. Results of phase I suggested that the quality of the material of the product being developed was “Very Appropriate” (84.375 %).

(2) Assessment by Material Expert Phase II: Phase II was conducted on April 19, 2018 at Sports Science Faculty of Universitas Negeri Yogyakarta. Results of phase II indicated that the quality of the material of the product being developed was “Very Appropriate” (93.75 %).

3.1.2 Data Validation by Media Expert

Media expert in this research was Nawan Primasoni, a lecturer of Sports Coaching Education at Sports Science Faculty of Universitas Negeri Yogyakarta. Selection of the expert was based on his high level of competences in the field of media and applications.

Validation process was conducted in two stages. The first stage aimed at discovering weaknesses so that the expert could propose solutions for improvement. The second stage was conducted after revision was made. At this stage, expert filled in questionnaire which was provided by the researchers. The questionnaire covered three aspects including physical, design, and application of the product.

(1) Assessment by Media Expert Phase I: Phase I assessment was conducted on April 23, 2018 at Sports Science Faculty of Universitas Negeri Yogyakarta. Phase I assessment resulted in the fact that the quality of the product being developed was “Very Appropriate” (84.37%).

(2) Assessment by Media Expert Phase II: Phase II was conducted on May 15, 2018 at Sports Science Faculty of Universitas Negeri Yogyakarta. This assessment showed that the quality of the material being developed was “Very Appropriate” (93.75%).

3.1.3 Small Group Testing

Small group testing was conducted on May 15, 2018 at 4 pm or during Selabora UNY’s gymnastics training session. A total of 5 club members participated in this testing. Data collection process began by showing the video and distributing the guidebook to the children. After some explanation regarding materials in the video, the children were allowed to practice the moves according to the stages presented in the media. After practice, researchers distributed questionnaire to children. According to these 5 respondents, the product being developed was considered “Very Appropriate” (92.9%).

3.1.4 Field Testing

Field testing was conducted on May 16, 2018 at 4 pm or during *Selabora* UNY’s gymnastics training session. A total of 10 club members participated in this testing. Data collection process began with showing the video and distributing the guidebook to the children. After some explanation regarding materials in the video, the children were allowed to practice the moves according to the stages presented in the media. After practice, researchers distributed questionnaire to selected children. Results of this testing indicated that the product was “Very Appropriate” (98.3%).

3.2 Discussion

Inside this audiovisual-based “Freehand Basic Movement Techniques in Rhythmic Gymnastics for Children Aged 7-11 Years” product, there are several basic movement techniques based on Code of Point in Rhythmic Gymnastics. Gymnastics techniques must be taught properly so that children can master the skills well.

The adoption of these learning media products in rhythmic gymnastics clubs’ training can be considered an innovation in learning. This learning video is more optimal and attractive in delivering material compared to the existing videos since this video shows movements in slow motion and explains the steps in doing gymnastics moves, making it easier for athletes to learn details of the movements. This learning media are also more effective compared to the existing learning media since this video is equipped with a guidebook that helps children understand each movement. These media can be used as learning source for children and help make rhythmic gymnastics learning more interesting.

In general, the trainees participated in this research considered these learning media as very appropriate. Through the questionnaire, they stated that the media being developed in this research were excellent, attractive, and fun. However, it is also clear that drawbacks or weaknesses exist. Application of these learning media among children who have not been able to read is hard. In such case, they demand parental guidance. In addition, these products show only freehand moves with limited rhythmic gymnastics movements.

However, in spite of being used not as the main source of learning, it is expected that these “Freehand Basic Movement Techniques in Rhythmic Gymnastics for Children Aged 7-11

Years” products can help solve learning problems, either as alternative source for learning or supplement. It is expected that the existence of these products can make rhythmic gymnastics learning more interesting and can motivate children in learning.

4 CONCLUSIONS

Feasibility of audiovisual-based media for learning freehand basic movement techniques in rhythmic gymnastics for children aged 7-11 years was assessed by experts. According to the material expert, these products scored 93.75% and therefore belonged to “Very Appropriate” category. Similarly, according to the media expert, these products scored 88.89% and was considered very appropriate. The tests generated similar results. The athletes/trainees participated in the field testing considered these products as “very appropriate” (98.3%). This audiovisual product can be used to support rhythmic gymnastics training for children aged 7 to 11 years. The video demonstrated a set of freehand moves and slow motion moves. Movements were selected based on the 2017-2020 Code of Point by FIG.

REFERENCES

- Federation Internationale de Gymnastique. 2017. *2017-2020 Code of Points Rhythmic Gymnastics*. FIG. United States.
- Federation Internationale de Gymnastique., 2017. *Technical Regulations 2017*. Section 1 General Regulations. FIG. United States.
- Sugiyono, 2015. *Metode Penelitian dan Pengembangan*. Bandung. Alfabeta.