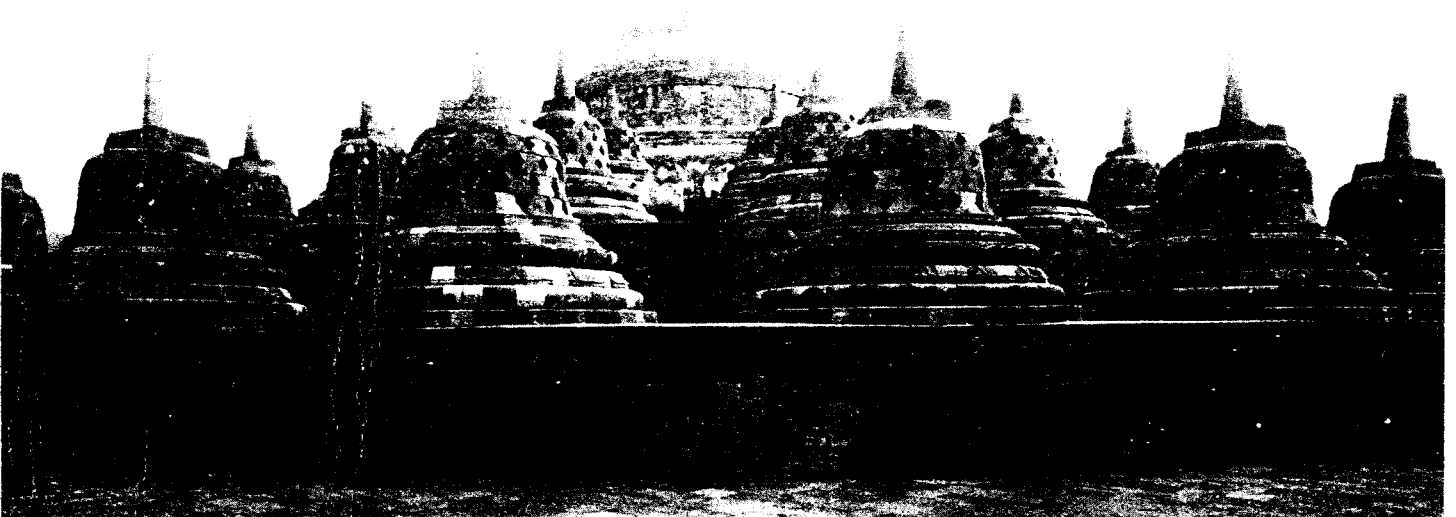


PROCEEDINGS

THE 1ST YOGYAKARTA INTERNATIONAL SEMINAR ON HEALTH, PHYSICAL EDUCATION, AND SPORTS SCIENCE.

Evidence-Based Practice of Sports Science in Education, Performance, and Health.

October 14th, 2017. Eastparc Yogyakarta, Indonesia



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For Further Information:

Universitas Negeri Yogyakarta, Indonesia
Phone : +6271 550826 (PR Office)
Mobile : +62857 8932 3727 (Mr. Satya)
 +62815 7602 0803 (Mrs. Cerika)
Email : yishpeess@uny.ac.id
Website : yishpeess.uny.ac.id



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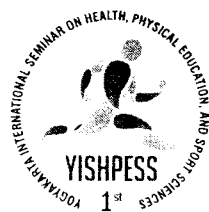
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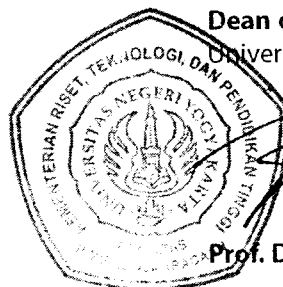

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Faculty of Sport Sciences
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October 14th, 2017

OPENING SPEECH

As the Dean of Faculty of Sport Sciences Universitas Negeri Yogyakarta, I would like to welcome and congratulate to all speakers and participants of the First Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) 2017 entitled "Evidence-Based Practice of Sport Science in Education, Performance, and Health".

This international seminar is actually an implementation in the framework of the assessment of the achievements and sports culture in society that can support the achievements of the Indonesian people, so that there will be a significant role of practitioners, academicians, sport people, and sports observers from Universities, Institutions and Sports Organizations to help actively facilitate in the development, assessment of innovative sports science development so as to achieve sport achievements at the National and International level.

Finally, we thank all the committee of YISHPESS for their hard work in organizing this activity, and congratulate the invited speakers and all participants. Hopefully, this seminar is significant for the development of physical education, health, and sports sciences.

The seal of Universitas Negeri Yogyakarta is a circular emblem. It features a central figure, possibly a bird or a flame, surrounded by the text "UNIVERSITAS NEGERI YOGYAKARTA". The outer ring of the seal contains the motto "PENCERMINAN RISET, TEKNOLOGI, DAN PENDIDIKAN" and the year "1949".
**Dean of Faculty of Sport Sciences,
Universitas Negeri Yogyakarta**
A handwritten signature in black ink, appearing to read "Wawan S. Suherman".
Prof. Dr. Wawan S. Suherman, M.Ed.

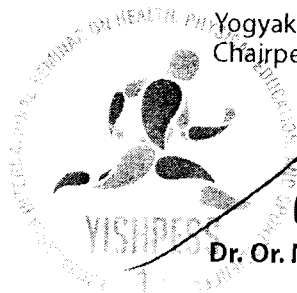
PREFACE

Alhamdulillah bilalamin, thank Allah the First Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) has been prepared well and on time. With all humility, we welcome and congratulate the speakers and participants of Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) organized by the Faculty of Sport Sciences, Universitas Negeri Yogyakarta.

The YISHPESS 2017 is designed to updating and applying evidence-based practice in sports science aspects, including: education, performance and health. We hope that the invited speakers of this seminar can reduce the gaps between academic and field to get best output in the daily sport and health practices.

We would like to thank to Rector and the board of Universitas Negeri Yogyakarta for supporting this seminar come true. Praise and be grateful to the Lord, so that this proceeding can be issued. Hopefully, the publication of this proceeding can bring benefits to the participants in particular and readers in general.

Yogyakarta, October 14th, 2017
Chairperson of the Committee



Mansur
Dr. Or. Mansur, M.S.

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DEVELOPMENT OF MONITORING BOOKS FOR SWIMMING

Nur Indah Pangastuti¹, Agus Supriyanto¹

¹Faculty of Sports Science, State University of Yogyakarta
indahpangastuti@uny.ac.id, agus_supriyanto@uny.ac.id

Abstract

Objectives: The aim of the study is creating a monitoring book product for the swimmer. That is used as a monitoring media of the progress of students achievement while training swimming in the swimming club. The subject of this study is a swimming coach in the Sleman area.

Methods: The method of this study is Research and Development which uses six ways in the developing research. Previously, the developing of the monitoring book for swimming club need to be identification, developing, validation by a material and media expert, then it was experimented in the small group consisting of five coaches and the big group consisting of fifteen coaches, and the final product. The data analysis by percentage quantitative.

Results: The result of the research and development totally explains about the monitoring book media that has the main topic consisting of the material of physical monitor, technique, and also the soft skill of the swimmer. The feasibility of material is 80%, while the rate of the media is 81%.

Conclusion: The monitoring book for the swimming is properly to be used in monitoring the development and growth of the swimmer.

Keywords: Development, Monitoring Book, Swimming.

INTRODUCTION

In each kind of sport, both sports for competition and not, has stages of training in the process of coaching that starts from basic skills or basic techniques to advanced techniques. Apart from skill, early-age sports coaching should also be done continuously from an early age.

Sports for young children is not the same as sports for teenagers or adults. The exercise material is more emphasized on how gestures can support the development and growth of the child. One of the sports that can be given for early childhood phase is swimming in which psychologically and technically different course for early childhood compared to adolescent or adult. Different training models are required, at a much earlier multilateral age so that the training programs provided can benefit children's growth and development both physically and psychologically. Focus exercises for early childhood need to monitor the development and growth of learners during practice. In such monitoring, the need for a medium that can effectively assist the trainer in storing information on child growth is necessary. Therefore, it is necessary to hold observations and interviews to find out whether there is a medium that can assist the trainer in monitoring the development and growth of early childhood in swimming practice.

Based on field observation, and student monitoring in micro, PPL and internships, it can be seen that there is no media that can help trainers in monitoring the development of children as well as a medium between the trainer with the child's parents to convey information about the child's growth during exercise since, in reality, many parents are unaware of the child's growth and development during the rehearsals, they are only motivated by the outcome of their child's championship. For early age sports, certainly not the type of sports achievements that highlighted, but rather to how the gestures can support the development and growth of children.

This research and development is intended to design the media to facilitate the trainer in monitoring the development and growth of early childhood as well as a media approach to trainers with parents of children. Media developed in the form of two-dimensional media in the form of

books. The monitoring book is developed with the concept that trainers can easily monitor child development and growth during the training process. Thus the monitoring book is expected to be used as an alternative media in monitoring the development and growth of children.

METHOD

This type of research is research and development (R n D). Research and Development is a product-oriented type of research. In this research, the development is done to produce a product in the form of Monitoring Book which is expected to become a media of information concerning the growth and development of students so that can it can be well monitored.

Media monitoring book in this development is a simple media presented with the material content of the book ranging from the presences, discipline, understanding and benefits swimming, monitoring mastery of swimming techniques, monitoring of child bio motor and child psychological monitoring. This book is designed so that children, parents and trainers can easily see the child's ability development easily and effectively. The results of this development product will be a book with an interesting design and equipped with pictures that support the contents of the book. The use of monitoring book media is quite easy, children, parents and trainers can use it. It is expected that this media can be said to be feasible and effective in its use in the training process.

Procedure of development of this research through several steps, such as: (1) Potential and Problem, that is book media that can effectively provide information at the same time to monitor child development have never been research, (2) Developing of Initial Product by paying attention to goal analysis of the monitoring book, (3) Design Validation and Revision by swimming experts and media experts intended to get input and approval from expert in swimming sports in which the Validation done by experts such as, (4) Test try a small group with 5 trainers who do swimming training in FIK UNY swimming pool and the test results are then revised again, (5) Field trials with 10 trainers and 5 athlete parents from the swimming pools in Sleman, (6) Final Results in the form of products that have received experts' approval.

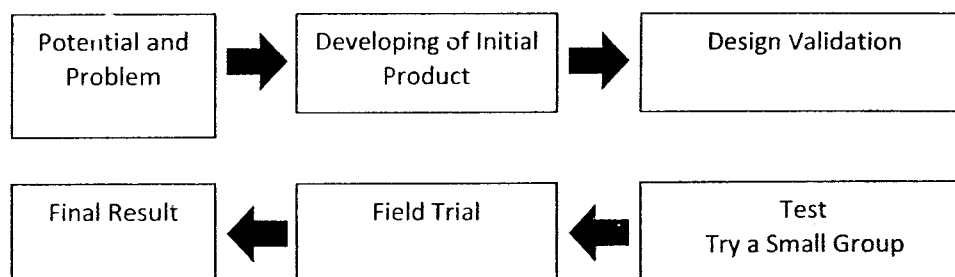


Fig. 1. Development procedure of research

Instruments for collecting data in this development study is to use a questionnaire. Questionnaire is a data collection technique that is done by giving a set of questions or written statement to the respondent to answer (Sugiyono, 2011: 142). The data collection in this development study uses open questionnaires and closed questionnaires, which on the next page is accompanied by a suggestion column. Questionnaires are given to media experts, material experts, and parents of learners. Questionnaire aims to obtain data about the level of media feasibility in the form of numbers as a basis in revising the product.

In order to obtain good results then the validity of the instrument added by using a questionnaire, where the material experts and media experts just fill in accordance with the questions provided. Validation of instruments for material experts and media experts is conducted through consultation and requesting assessment to experts who have expertise on the material to be tested and media criteria. After consultation with the expert because the language is still unclear and less specific so it must be fixed until the item can be considered as valid and can be used. Expert

validation results on the material side obtained 74% feasibility rate and on the media side obtained the feasibility level of 84.5%.

In this research, the formula used to find the reliability of the measuring tool on the development of Monitoring Book for early age pool is with Alpha Cronbach. Reliability is considered satisfactory when the coefficient is 0.754 for small group trials and 0.532 for field trials, but sometimes a coefficient that is not as high as it can still be used together with other scales in a measurement device. After tested the reliability using SPSS 16.0 Version obtained Alpha Cronbach coefficient. In small group experiment obtained coefficient 0,689 and field trial obtained coefficient equal to 0,487. The purpose of the test validity and reliability is for the absolute requirement in research to obtain data from the instrument that has been tested and able to measure the data to be measured.

After the data collected, then the data were clarified into two groups of data, namely qualitative data and quantitative data (Suharsimi Arikunto, 1996: 244). Qualitative data was obtained through expert validation activities and pilot activities in the form of inputs, responses and criticisms and suggestions. Quantitative data in the form of assessment, collected through questionnaires or product trial questionnaires, at the time of trial activities, analyzed by descriptive quantitative analysis. Percentages intended to know the status of something that was presented remain a percentage. After reaching the percentage and then interpreted with sentences that were qualitative. The questionnaire used in this study was a questionnaire assessment or response with a form of "HIGHLY AGREE", "AGREE", "DISAGREE" and "HIGHLY DISAGREE" answers. Based on the number of opinions or answers, then researchers present each

$$P = \frac{\text{Jumlah skor yang diperoleh}}{\text{Jumlah skor maksimal}} \times 100\%$$

Keterangan:
P = Persentase

Having obtained a percentage of that formula, the eligibility of the pool Monitoring Book in this development study was classified into the following four feasibility categories:

RESULTS AND DISCUSSION

Research of "Monitoring Book for Pool Sport" is done with preliminary research in advance through observation as well as interviews some swimming coaches in the pool FIK UNY.

Table 1. Feasibility percentage category

No	Skor persentase (%)	Category
1	0% - 25%	not feasible
2	26% - 50%	less feasible
3	51% - 75%	quite decent
4	76% - 100%	Worthy

RESULT AND DISCUSSION

Parents get very enthusiastic about knowing their child's progress in training, while the trainer needs physical evidence that can be used as a monitoring tool for his or her child's training which can be a medium of information to the child's parent trainer in terms of their child's development during the training process. After doing the initial research and then proceed with making a book monitoring pool and validated by experts in their field, namely a media expert and swimming material experts. This expert review generates the following revisions:

Tabel 2. Result of expert validation

No.	Aspects assessed	score obtained		maximum score	Percentage (%)		Category
		Ahli 1	Ahli 2		Ahli 1	Ahli 2	
1.	Design Feasibility	25	36	40	62,5	87,5	Worthy
2	Feasibility material content	28	35	40	70	90	Worthy

a. Product Validation Data by Media Experts

The media expert as the validator in this research is Dr. Budi Astuti, M.Si who has expertise in media field. The drawing on the exercise is given a description of how to do and how to calculate. Monitor the ability of swimming strokes, and drawing exercises and test forms.

Tabel 3. Data research results books monitoring materials for sports swimming by expert medial

No.	Rated aspect	Scores gained	Maximum Score	Persentase (%)	Category
1.	Design Feasibility	25	40	62,5	quite decent
Total score		25	40	62,5	quite decent

b. Product Validation Data by Expert Material

Expert material as the validator in this study is Sarmanto, S. Pd who has expertise in swimming pool coaching. In stroke exercises, more emphasis on the right to make movements in sports pool. The language written on the image must be present to clarify and inform.

Tabel 4. Data Research Results Books Monitoring Materials For Sports Swimming By Expert Material.

No.	Rated aspect	Scores gained	Maximum Score	Persentase (%)	Category
1.	Feasibility material content	28	40	70	quite decent
Skor Total		28	40	70	quite decent

The stages of the contents of the monitoring book revised twice, after making improvements to the second product, the monitoring book for the swimming sport is declared eligible and allowed to continue the testing phase at Yuso and Dolpin swimming clubs. Feasibility in terms of media is seen from several elements: (1) Physical Aspects (book size, Book thickness, Material paper used), (2) Aspect Design, content form (Image size on content, Arrangement of image on content, , The arrangement of the image on the cover), the writing (the size of the writing on the cover, the arrangement of the writing on the cover, the size of the writing on the content, the writing on the content), and Color (the color of the Book cover, the color of the writing on the cover, the color of the writing on the content), (3) Aspects of Use (Attracting Attention, Helping Monitor Child Development Progress)

Two product revisions were made based on suggestions given by material experts and media experts, as well as on the basis of assessment of the child's parenting during the trial. First Phase Revision

1) Product Revisions Based on Expert's Suggestions Materials, improvements made are on the

following matters: (a) In swimming stroke exercises more emphasis on effective and efficient in doing the movement. (b) An explanation of the image must be present to clarify and inform.

- 2) Product Revisions Based on the advice of the media expert, the improvements made are as follows: (a) The drawing on the stroke exercise is given a description of how to perform and how to calculate; (b) On stroke monitoring the exercise drawing style and stroke tests are more customized.

Revise the results of second stage validation

- 1) In the second stage of validation the percentage obtained increased from 62.5% to 87.5% of the maximum score. Thus it can be stated that according to the material expert, in the second validation stage of the media "Monitoring Book for Swimming" which developed from the feasibility aspects of the content of the material get the appropriate category.

Table 5. Data from the assessment of monitoring material for swimming pool sport by second stage material experts.

No.	Rated aspect	Scores gained	Maximum Score	Persentase (%)	Category
1.	Feasibility material content	35	40	87,5	Worthy
Skor Total		35	40	87,5	Worthy

- 2) In the second stage of validation percentage obtained increased from 70% to 90% of the maximum score. Thus it can be stated that according to the media expert, in the validation stage of the two media "Book Monitoring for Swimming" which developed from the feasibility aspect of the media content get the category worthy

Tabel 6. Data from the assessment of monitoring material for swimming pool sport by second stage media experts.

No.	Rated aspect	Scores gained	Maximum Score	Persentase (%)	Category
1.	Design Feasibility	36	40	90	Worthy
Skor Total		36	40	90	Worthy

Small Group Trials

A small group trial was conducted on 5 parents of learners at Selobora pool FIK UNY. Small group trials were conducted in 1 session with 20 minutes of time. Conditions during small group trials as a whole can be elaborated as follows: (a) The condition of the explanation of the monitoring book, the parents of the training child is enthusiastic and interested in the content of the monitoring book. (b) Conditions when filling the questionnaire of the child's parent train to pay attention to the explanation on the procedure of filling the questionnaire to be more thorough. With full concentration of parents when filling out the questionnaires, they can understand the questions asked in the questionnaire.

Tabel 7. Result of small group trial questionnaire

No.	Rated aspect	Scores gained	Maximum Score	Persentase (%)	Category
1.	Material	170	200	85	Worthy of implementation
2	Design	176	200	88	Worthy of implementation
Skor Total		346	400	86,5	Worthy of implementation

The result of the questionnaire of the trainers' parents concerning the book media of "Monitoring Book for swimming" shows that for 85% of the material aspect criteria are categorized as feasible and for the description of the book descriptions of 86.5% are categorized as feasible. Total assessment of media feasibility test book "Monitoring Book for Pool Sport" according to the respondents parent child training of 86.5% is categorized as feasible which can be interpreted that the media is worth to be tested to the next stage.

Field Trial

Field trials are conducted to 10 coach and 5athlete parents during the Mayor swimming competition. Trial is done in 1 session with 20 minutes of time. Conditions during the overall field trials may be outlined below: (a) The condition of the monitoring book explanation, the parents of the trainee are interested and there is a content in the monitoring book. (b) Conditions when filling out the questionnaires, parents pay attention to the explanation of the questionnaire procedure, they can properly understand the questions asked.

The result of the questionnaire of the trainers' parents concerning the book media of "Monitoring Book for Swimming" shows that for the material aspect assessment of 80% which is categorized as feasible and for the descriptions of book descriptions of 81% are categorized as feasible. Total assessment of media feasibility test book "Monitoring Book for Swimming" according to the respondents parents training children as much as 80.5% is categorized as feasible which can be interpreted that the media is worth to be tested to the next stage.

Tabel 7. Results field questionnaire

No.	Rated aspect	Scores gained	Maximum Score	Persentase (%)	Category
1.	Material	480	600	80	Worthy of implementation
2.	Design	486	600	81	Worthy of implementation
Skor Total		966	1200	80,5	Worthy of implementation

Data analysis

Based on the data obtained in this study, data analysis is done carefully and researched with the analysis of data obtained this resulted in several things as follows: (1) After the revision and small group testing, it is decided to revise the book because the material of stroke observation (2) Based on small group and field trials showing there are still deficiencies, a revision of the deficiencies to be corrected for the final product of the book (3) Based on small group and field test trials showing the results of the test in category is eligible.

Discussion

Some of the things that need to be addressed in expert / material and media testing and small group and large group trials are as follows:

- 1) Testing to a material expert. The result of the questionnaire to the material expert shows that the level of relevance into the content material used increased from the first stage of the validation to the second stage from 62.5% to 87.5% of the maximum score which means that material in this book media is suitable to be used in monitoring the development of swimming exercise.
- 2) Testing to media experts. The result of questionnaire to media expert shows the level of relevance to the media used increased from the first stage to the second stage from 70% to 90% of the maximum score. Means that material in this book media is suitable to be used in monitoring the development of swimming exercise.
- 3) Testing to the child's parents. Small group trials, Results of parent questionnaires on media "Monitoring Book for Swimming" indicate that for the assessment of material aspects of 85% are categorized as feasible and for the description of the book descriptions of 86, 5% are categorized as feasible. Total assessment of media feasibility test Monitoring Book for Pool Sport according to the respondents' parents of training children is 86.5% is categorized as feasible which means that the media is feasible to be tested to the next stage with larger sample.

Field trials, children's parenting questionnaires survey on the media "Monitoring Book for Swimming" indicate that for the judgment about the material aspect of 80% which is categorized as feasible and for the description of the book descriptions of 81% are categorized as feasible. Total assessment of media feasibility test Monitoring Book for Pool Sport according to the respondents parents of training children is 80.5% is categorized as feasible which can be interpreted that the media is feasible to be tested to the next stage with larger sample.

From the above discussion can be submitted that the media book "Monitoring Book for Swimming" worthy used to monitor the results of swimming exercises in children training. As for the results of the discussion of the parents of children in training is they more easily and carefully monitor the progress of his child in swimming exercises. While according to the trainer, it will help monitor regularly about the achievement of child training and more easily provide information and discussion to parents of children train about the development of children in the process of swimming exercises.

CONCLUSION AND SUGGESTION

The developed Media "Monitoring Book for Swimming" is suitable for monitoring the progress of the pool exercises. Overall media "Monitoring Book for Swimming" gained a feasibility level from the material aspect of 80% and for the description of the book descriptions of 81%..

Suggestions that can be given to trainers can use the book as one of the media that can assist in monitoring the development of child in training for parents can use the book to check the progress of their child in the process of swimming exercises and as a means of discussion with the trainer related to the results of training of the children.

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