



Model Technique on Grabstart Swimming Branch using Video Media for Deaf-Children

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ABSTRACT

The goal of this study was to produce a grabstart swimming training model using video media in deaf children and to determine the effectiveness, efficiency and attractiveness of the training model. This study uses adopted model from Research & Development by Borg and Gall. Subjects of the study were 40 deaf children consisting of 20 experimental groups and 20 control groups. The instrument used was a swimming-start skill test. The research steps were needs-analysis, expert evaluation, small and large group-test. The effectiveness test determines the level of deaf swimming-start skills of children after being given a grabstart swimming training model. Based on the average pretest-posttest value of the experimental group that were 49.92 to 56.18, there was an increase of 6.26 while the average value of the pretest-posttest control group was 50.02 to 52.20 with an increase of 2.18. Thus, it could be seen that training using the grabstart swimming training model using video media is more effective than the control group. We concluded that (1) the grabstart training model of swimming sports using video media can be developed and applied to deaf children, (2) the grabstart training model of swimming sport using video media is effective in improving the deaf children's swimming-start skills.

Keywords: Model, grabstart exercise, swimming, swimming-start.

INTRODUCTION

Sport branch of Aquatic sports which is done by moving (floating or lifting) all parts of the body surface the water using feet and hands movements in order to push the body forward. Unlike other sports, swimming is divided into several functions in accordance with the purpose of the sport, namely swimming for rehabilitation sports, recreational sports and performance sports. Swimming for achievement sports is to improve the dignity and nation status through increased ability and sportsmanship skills. Swimming is one of the main sports and must be held in every race such as the National Student Sports Olympiad, National Sports Week, SEA Games, Asian Games, Olympics, even the World Student Sports Games / World University Games (Suharsono, 1974).

Efforts to increase the ability and potential of sportsmen to improve the nation's dignity and reach maximum achievements must begin with fostering and continuing development at both the regional and central levels. The coaching

and development of swimming sports achievements are also supported by an understanding by the trainer regarding the characteristics of the athlete and also the age at which training begins and the age at which the athlete achieves peak performance (Morais, 2018).

Coaching the maximum achievement in swimming sports must pay attention to the mastery of techniques, both when doing the start or start, swimming techniques, reversal and finish. The start in a short distance swimming race is very important and something needs to be considered by the coach and athlete. By doing a good start technique it will shorten the swimmer's travel time aside from a good and fast swimming technique. Ernesh W. Maglischow revealed that by improving the start time it could reduce travel time by at least one tenth of a second and the effect of the start time was approximately 25% of the total time spent in the 20 meter swimming race, 10% of the total time spent in the 50 meter swimming race, and 5% of the total time spent in the 100 meter swimming race.

Some of the researcher's observations show that deaf swim athletes during the race are many mistakes made by deaf swimmers such as jumping before the initial cue is given, and very often the athlete is late in jumping when the initial cue is given. that in its implementation, the start carried out by the athlete does not produce a jump and also the slide which is not far ahead. the training model applied by the trainer does not work well, is monotonous and boring as well as the lack of interaction between the coach and athlete. For overcome this problem it is a must to develop a swimming start training model using video media for deaf children.

Formulation of the problem namely 1) What is the grabstart exercise model of swimming using the video media for deaf children? 2) Does the swimming start training model being effective by use video media to improve swimming grabstart abilities in deaf children? Research Objectives: 1) Produce a product model of the practice training skills start swimming swimming using video media 2) Effectiveness test of developing the practice model of swimming start training skills using video media deaf athletes

Dwiyogo (2004) Development Research aims to develop products learning, such as developing sports school models, developing physical education curricula, developing sports learning strategies / methods, developing sports learning media, developing sports learning textbooks etc. ”.

Sukmadinata explained that research and development do not always produce products in the form of objects or hardware, for example: Books, modules, learning media, but also software, for example: computer programs, educational models, learning, assistance, evaluation, management and so on (Sukmadinata, 2005)

It based on Kurnia's opinion (2001: 24) says that start is the beginning of a competition in various sports including swimming. The role and purpose of swimming in the swimming race is very influential on the swimming ability possessed by swimmers. This means that the acquisition of time achieved by a swimmer to finish his finish in a particular

swimming number in a swimming race is influenced by the role and ability to start he has.

According Suharsono, et al (1974) said that "for a swimmer who will take part in the competition, if he cannot start well means loss, because it will lag about 1 meter at the start of the race.

In the recent study of Morais, Marinho, Arellano and Barbosa (2018) it was *observed that the start and turn combined accounted for almost one third of the total race time among the finalists of the 100 m distance events (including all strokes) in the 2016 European Championships, suggesting that coaches and swimmers should dedicate an expressive portion of the training perfecting these actions.*

Atho (2010) The word media comes from the Latin "medius" which literally means middle, intermediary, or introduction. More specifically, the notion of media in the process of teaching and learning tends to be interpreted as graphic, photographic, or electronic tools for expressing, processing and rearranging visual or verbal information.

According to Schramm in Wina Sanjaya the media are classified into complicated, expensive, and simple media. Schramm also classifies media according to the ability of coverage, namely (1) wide and simultaneous coverage such as TV, radio and facsimile; (2) limited coverage of the room, such as films, videos, slides, audiotape posters; (3) media for individual learning such as books, modules, computer and telephone learning programs.

In this study using video as an audio-visual media that displays motion and also models of swimming start training techniques. The use of video media increasingly popular in our society. The message presented in video media can be factual (such as important events, news) or fictitious (such as stories), can be informative, educative or instructional

Boothroyd in Bunawan (1997) using the term hearing impairment (*Hearing Impairment*) relating to disturbances in power listen to someone, regardless of their nature, causative factors, and degree of disability.

Deaf child education expert that is Daniel Ling (1976) in Edja Sadjaah (2003)

argues that, "Illness gives a core impact suffered by those concerned namely impaired/ inhibited language development."

According to Winarsih in Ririn (2012) states that hearing impairment is a condition or the state of loss or lack of ability to hear either partially or completely which is a result of the malfunction of some or all of the hearing aids, so the child cannot use the senses of the listener in everyday life.

Hearing loss can be classified from 0 dB to more than 91 dB according to Jordan, (2001). *To put this in context, audiologists categorize hearing based on pure-tone frequencies of 500 to 4000 Hz and as: normal hearing (0-20 dB), mild hearing loss (20-40 dB), moderate hearing loss (40-60 dB), severe hearing loss (60-80 dB), and profound hearing loss (80 dB or greater).*

RESEARCH METHODS

This research was conducted in Lotus Pool complex of H. Agus Salim GOR Complex which is located at Jalan Batang Kampar, Padang City and when the research conducted began from the preparation of the proposal to the completion of the research report, while for 6 months to August 2019.

The research method of this research uses *Research & Development (R & D)*, the research approach in seeing answers to problems through the formulated research problems that is swimming technique model using video media for deaf children. The subjects of this study are deaf children aged 12 years and over with a classification of 55 dB moderate hearing to 91 dB or very heavy mastering freestyle swimming techniques and breaststroke.

This research and development will produce a product of a grabstart training model of swimming sport of deaf children's using video media. The product is to measured its level of complexity and effectiveness, thus this product is expected to increase mastery of swimming start skills and can also be used by teachers as a plan to improve deaf children's swimming start skills. This research and development uses a development model adopted from the Borg & Gall Research & Development

consisting of 10 steps then developed again up to 13 steps, as shown on Figure 1.

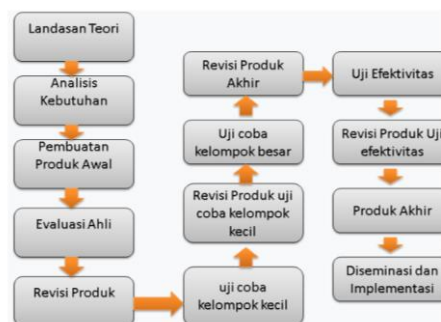


Figure 1. The development model (Borg and Gall Model, 1983)

RESULTS AND DISCUSSION

The results obtained that 50 of 55 swimming grabstart training models have been developed. Several stages called expert testing of grabstart skill training models of swimming sports using deaf children's video media can be concluded that: (1)sequence of training models, in compiling the form of exercise should start from easy to difficult movements or complex (2) description about the implementation of each model is made shorter and clearer (3) Each drill variation of each model, do not forget the principles of motion mechanics, such as the optimization of sliding motion also pay attention to obstacles or resistance to water.

A. Model Effectiveness / Phase I Results

The grabstart exercise model of swimming sports using video media for deaf children made by researchers has gone through an evaluation process from experts, then conducted a first revision, after the draft product revised then a small group trial with 15 research subjects was conducted. The results of small group trials show that, the product of this development training model can be applied and continued in the second stage.

B. Results of Phase II / Large Group Trials

The research subjects used for this large group trial with 45 deaf children consisting of 9 Special Schools in Padang City.

The trials in large groups in the implementation of grabstart exercise product model development in swimming

for deaf children can be concluded that are: (1) The training model can be applied and carried out by all subjects (2) there are several training models need to be considered how to implement or the work method is the jump motion training model conducted on land should use tools such as mattresses. (3) Repetition of each model also needs to be considered, children can be trained independently by providing video media (4) the draft model of grabstart training in swimming using the video media for deaf children can be continued on the effectiveness test.

C. Effectiveness Test

Effectiveness testing, researchers applied exercise for 6 (six) weeks in 14 (fourteen) meetings by conducting initial tests, giving treatment and final tests on 20 deaf children as an experimental group and 20 deaf children as a control group.

To calculate the effectiveness of dependent samples used *Paired Two Sample for Means* and to calculate the effectiveness of Independent Samples using *t-Test: Two-Sample Assuming Equal Variances* using the *Excel*.

Table 1. Experiment Group

Exp	Mean	t _{count}	α	t _{table}	Desc.
<i>Pre Test</i>	49.50	16.21	0.05	2.101	H ₀ rejected
<i>Post Test</i>	55.77				H ₁ accepted

From the calculation of the experimental group data, T count (16.211) is greater than T table (2.101) then there are differences in the results of grabstart exercises using video media for deaf children between *pretest* and *posttest* (Table 1, Table 2 and Table 3).

Table 2. Control Group

Control	Mean	t _{count}	α	t _{table}	Description
<i>Pre Test</i>	49.71	4.13	0.05	2.101	H ₀ rejected
<i>Post Test</i>	51.79				H ₁ accepted

From the start swimming pool skill control data, it is obtained that the T count

(4,130) is greater than T table (2,101) then there is a difference in the data of the start swimming pool control group between the *pretest* and *posttest*.

Table 3. Post-test results

Group	Mean	t _{arithmetic}	α	t _{table}	Remarks
Experim.	55.77	2.03	0.05	2.02	H ₀ rejected
Control	51.79				H ₁ accepted

From the calculation of skill data for starting the swimming pool of the experimental group and the control group, obtained that the calculated T (2.0315) is greater than the T table (2.0281) then there is a significant difference between the experimental and control groups.

To find out the magnitude of the increase in swimming start skills of deaf children, this study used *atest gain score*. Data calculation gain score is as shown in Table 4.

Table 4. Gain Score

Criteria	Experim.	%	Control	%
Low	6	30	15	75
Average	12	60	5	25
High	2	10	0	0

Describe that the start swimming group experiments skill included in the high category 2 (two) subjects 10%, 12 (twelve) subjects with a percentage of 60% and low category 6 (six) subjects with a percentage of 30%. As for the start swimming skills of the control group included in the medium category 5 (five) subjects with a percentage of 25% and a low category of 15 (fifteen) subjects with a percentage of 75% for the high category was zero (Figure 2).

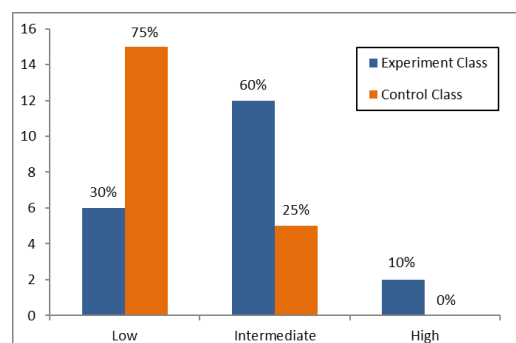


Figure 2. Results of the research

So, it can be concluded that, the deaf start swimming skills of the experimental group or the group that given treatment in a grabstart exercise model of swimming sports using the medium of fdehyde is better than the deaf start swimming skills of the control group or comparison group.

CONCLUSION

Based on the results, it can be concluded that:

- a) The grabstart training model of swimming sports using video media can be developed and applied to deaf children.
- b) The product of the grabstart training model of swimming sports uses video media on deaf children, after being tested in the test the effectiveness of the model has been proven to improve the deaf children's swimming start skills.

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