THE EFFECTIVENESS OF THE SHOOTING TRAINING MODEL USING THE REPETITION METHOD IN BASKETBALL FOR AGED 12-14 YEARS

Sari Mariping Mayangsuri[1*], Ramdan Pelana[2], Iman Sulaiman[3]

[1]Pendidikan Jasmani, Fakultas Ilmu Keolahragaan, Universitas Negeri Jakarta, Indonesia

Correspondiing author. Email: mayangmariping@gmail.com

Abstract This study aims to determine the improvement of shooting skills in basketball games with the repetition method in basketball games for ages 12-14 years. This research was conducted from May-June 2023. The subjects in this study were 45 players aged 12-14 years. This research focuses on testing the effectiveness of developing a shooting technique training model with the repetition method, therefore the approach and method used in this study is a quantitative approach with a pre-experimental research design in the form of the one group pretest-posttest design. Data analysis used the inferential analysis was carried out using the T test, with a significance test (α) = 0.05. In the significant difference test with SPSS 16, the average value = 1.778 shows the difference from the results of the pre-test and post-test, df = 44, the results of t count = 11.212 > t table 1.680 (from n = 45) and p-value = 0.00 <0.05, which means there is a significant difference between before and after being treated with the basketball shooting training model with the repetition method. The conclusion is that the basketball shooting exercise model with the repetition method is effective and provides an increase in the shooting skills of children aged 12-14 years.

Keywords: Shooting basketball; repetition method; 12-14 years old

INTRODUCTION

Mastery of basic techniques in playing basketball is important for improving individual quality so that they can support team play (Altavilla, D'isanto, & Francesca, 2020). To get points the technique used is the shooting technique. Shooting in basketball can produce 1 point, 2 points, 3 points (Nurhidayah, Chaerul, Kurniawan, 2022).

Shooting techniques are an important point in the success of a team in winning matches (Dai, Hadjarati, Haryanto, 2021). Shooting is a basketball player's attempt to put the ball into the opponent's basket (ring) (Muttaqin, Hidayah, & Mukarromah, 2019). Shooting techniques in basketball games include: hook shot, lay-up shot, catch the ball then lay-up, jump shot with two hands (jump shoot), and one hand shot above the head (one hand set shoot) (Hermawan & Rahman, 2018).

The basketball shooting technique requires good movement coordination which is commonly referred to as BEEF (Balance, Eyes, Elbow, Follow-through) where the body position must be balanced with the eyes towards the basket, then the elbows form a 90 degree right angle and ends with follow-up movement. BEEF is a shooting concept that makes it easier for athletes to understand and master shooting techniques properly and correctly (Gil-Arias et al., 2019).

The training model uses the repetition shooting method in the parimater area (medium shoot) which is one of the skills for scoring scores in the form of shots and outside the free throw area which every basketball player must master. This skill will be needed by a basketball player in a game to score good points. Because this shooting is done at a moderate distance, which means not too far and not too close to the ring. So when a position is not possible to do under the ring, ideally it will be easier for players to score points compared to other types of shots such as three point shoots.

In practice, shooting at medium distances is difficult for basketball players to master. Often a player fails (miss) to shoot in a game, many factors influence one of which is a lack of practice in improving shooting accuracy and lack of confidence in shooting.

In previous research the shooting rotation training model is still used to improve shooting accuracy in basketball until now, basically using the drill

training model is still the most effective way to train a technique. Shooting practice is only given during the transfer period. This is still felt to be lacking in improving shooting accuracy so it needs a variety of training models. The researcher intends to create a new training model with a repetition training model that can be used for maturation of shooting skills, especially for North Jakarta Basketball Academy (IBA) students.

Research on basketball usually focuses more on shooting techniques, such as research conducted by (Ramadhan & Irawan, 2022) to identify and analyze shooting movement skills according to the BEEF concept (balance, eyes, elbow, follow through) in sports or basketball game. Research on the effect of shooting practice with the BEEF concept on the ability to shoot free throw basketball for PERBASI Junior Athletes in Bantaeng Regency (Reski, 2021).

Research conducted (Riswan et al., 2021) Shooting practice using the BEFF concept can provide an increase in shooting skills on basketball for beginners. Another research conducted by Hajaang, Y., Simanjuntak, V. G., & Gustian, U., regarding the Implementation of the BEEF (Balance, Eye, Elbow, Follow Through) Concept in Basketball Shooting Learning. Research by (Yunitantoro & Dr. Or. Gigih Siantoro, R. H., 2022) about the Effect of Free Throw Shooting Practice Using Qube Basketball Trainer on Basketball Players Under 15 Years Old.

Based on some of these studies, there has been no research on the development of shooting training models with the repetition method in basketball, thus this research has an update that was carried out by focusing on the shooting practice method with the repetition method. Based on this background, the authors are interested in researching shooting exercises.

With the research title "Development of a Basketball Shooting Training Model with the Repetition Method for Ages 12-14 Years, the authors hope that this combination of training models can increase accuracy and improve athletes' skills in shooting basketball.

METHOD

This research focuses on developing a shooting technique training model with the repetition method, therefore the approach and method used in this research is research and

development (R&D) (Sulaiman & Fajrin, 2018). Research and development is not research to find a theory, but research that aims to produce and develop a product (Wenly, A.P, Pelana, Wasan, 2021). The research method used in this study is the Borg and Gall research and development method, taking into account the stages of development research that are stated quite clearly (Gay et al., 202).

The research and development steps developed by Borg and Gall above can be explained as follows:

1. The first step that is determined is the ideas to be developed, R&D of the problems that are around. Gathering information: after the potential and problems can be shown in fact, then various information is collected that can be used as material for planning.
2. Gather information: after the potentials and problems can be shown factually, it is necessary to obtain information as material for planning. Field surveys are a way of research to collect information, and the information obtained can be through coaches and athletes.
3. The product design is the result of a series of preliminary studies, which

in this study is a basketball shooting exercise model with the repetition method for ages 12-14 years.

4. Design validation is the process of assessing the training model by experts.
5. Design improvements after known weaknesses.
6. Limited product trial by practicing the training model during training.Revisi produk kembali berdasarkan hasil uji terbatas.
7. Trial again use in real conditions.
8. Revise the product again if deficiencies are found in actual conditions.
9. Manufacture of mass products after repair or revision

Effectiveness tests are carried out using larger, more numerous or more heterogeneous trials. The number of players involved in this group trial was 45 players from 3 (three) basketball clubs.

Data analysis used the Kolmogorov-Smirnov normality test using the Statistical Package for Social Science (SPSS) application. Data were further analyzed descriptively through the following steps: data recapitalization, data description, and data interpretation. The presentation of

this data is then displayed in tabular form. While the inferential analysis was carried out using the T test, with a significance test (α) = 0.05.

RESULT AND DISCUSSION
RESULT

After the results of product development for basketball shooting training using the Repetition method for ages 12-14 years have been tested on a small scale and have been revised, the next stage is to conduct large group trials. Based on the results of limited trials (small group trials) that have been evaluated by experts, the researchers then revised the initial product and obtained 14 models of basketball shooting exercises with the repetition method to be used in large group trials.

The next step after the model underwent phase II revision from experts was to continue with testing the product to a large group using 45 children from the Indonesian Basketball Academy (IBA) Kelapa Gading North Jakarta team, GRJU Sonic Club North Jakarta and Rorotan Basketball Academy North Jakarta.

To measure the effectiveness of implementing the basketball shooting training model with the repetition

method, the "t-test" is used. Data from the pre-test and post-test results use the t-test table at a significance level = 0.05. The following are the calculation results presented in the table.

Table 1.
Shooting Effectiveness Test Results

	Pre-test	Post-test
N	45	45
Mean	2.58	4.36
Std. Deviation	1.055	1.131
Std. Error Mean	0.157	0.169

Based on the table above, which was calculated using SPSS 16, the results of the t-test obtained an average pretest value of 2.58 before being given treatment and after being given the treatment of the basketball shooting training model with the repetition method with a post-test average value of 4.36.

Table 2.
Shooting correlation test results with the t-test

	N	Correlatio	Sig.
Pretest & posttes	45	0.529	0.000

Based on the values in the table above, the yield coefficient before and after being treated is 0.000 Sig <0.05. The conclusion is that there is a significant relationship.

Table 3.
Results of Pre-Test and Post-Test Shooting

Pretest-postest	Paired differences		t	df	Sig. (2-tailed)
	mean	Std. dev			
	1.778	1.064	11.212	44	0.000

In the significant difference test with SPSS 16, the average value = 1.778 shows the difference from the results of the pre-test and post-test, df = 44, the results of t count = 11.212 > t table 1.680 (from n = 45) and p-value = 0.00 <0.05 which means there is a significant difference between before and after being treated with the basketball shooting exercise model with the repetition method.

DISCUSSION

This training model is made based on the level of children's needs in basketball shooting training activities for ages 12-14 years. Comparison of the total basketball shooting training model, where before implementing the model that the researchers made, the results were 116 and after being treated using the basketball shooting training model with the new repetition method as a result of the research's design, it looks improved or more with a total of 196. This means that the total obtained after the implementation of the basketball shooting training model with the new repetition method in the training session is getting better in shooting accuracy.

Research from (Heri Rustanto, 2017), the research aims to improve learning to shoot basketball using media images in class VIII G students of SMP Negeri 2 Ngabang. The results of the study showed that there was an increase in learning to shoot basketball using media images in class VIII G students of SMP 2 Ngabang. Furthermore, research from (Yudha Kurniawan, Subandowo, Ujang Rohman, 2022) concerning the effect of using audio-visual media on increasing basketball shooting results. The results of this study the conclusion is that the use of Audio Visual media is very influential with the progress of student shooting results in the PJOK subject.

Based on some of these studies that shooting skills can be improved by several methods. However, the method used by the research above does not use age specific, while in this study shooting skills are trained using a specific repetition method for children aged 12-14 years, so that the training model given is guided by the characteristics of children aged 12-14 years.

This development research has been maximally pursued according to the abilities of the researchers, but in this study there are still some limitations that must be recognized and put forward as

material for consideration in generalizing the results of the research achieved. The limitations include the following:

a) Field trials of this research will be even better if carried out on a wider scope.

b) The product used is still far from perfect in the basketball shooting practice process.

c) The facilities and infrastructure used are still limited.

d) The needs of each child are different.

e) There is a psychological factor, the child is impatient in queuing because he wants to do it first so he can get it quickly from the others.

f) It takes longer because one by one must be considered in detail so that there is no justification for mistakes (bad habbit).

CONCLUSION

Based on the results obtained from the study, it can be concluded that the basketball shooting training model is effectively applied in basketball training, especially in shooting material in basketball games.

REFERENCES

Altavilla, G., D'isanto, T., & Francesca, D. (2020). The 283. educational value of rules in basketball. *Journal of Human Sport and Exercise*, *15(4)*, s1195–s1203.

Dai, Aswan., Hartono Hadjarati, Arief Ibnu Haryanto. 2021. Gaya resiprokal untuk meningkatkan keterampilan shooting bola basket. Altius: Jurnal Ilmu Olahraga dan Kesehatan Volume 10, No. 1, Mei 2021, pp. 53-65 http://dx.doi.org/10.36706/altius.v10i1.14056

Gay, L. R., Geoffrey, M., & Airasian, P. W. (2020). *Educational Research - Competencies for Analysis and Applications* (Vol. 21, Issue 1). http://journal.um-surabaya.ac.id/index.php/JKM/article/view/2203

Gil-Arias, A., Garcia-Gonzalez, L., Del Villar Alvarez, F., & Gallego, D. I. (2019). *Developing sport expertise in youth sport: A decision training program in basketball*. *Journal Internasional*, *2019*(8), 1–19. https://doi.org/10.7717/peerj.7392

Heri Rustanto. (2017). Meningkatkan pembelajaran shooting bola basket dengan menggunakan media gambar. Jurnal Pendidikan Olahraga, Vol. 6, No. 2, 2017. IKIP PGRI Pontianak

Hermawan, D. A., & Rachman, H. A. (2018). Pengaruh pendekatan latihan dan koordinasi mata tangan terhadap ketepatan shooting peserta ekstrakurikuler basket. *Jurnal Keolahragaan*, *6*(2), 100–109. https://doi.org/10.21831/jk.v0i0.20349

Kurniawan, Yudha, et al. "Pengaruh Penggunaan Media Audio Visual terhadap Peningkatan Hasil Shooting Bola Basket dalam Pembelajaran PJOK Siswa MAN Kota Surabaya." *Jurnal Pendidikan Kesehatan Rekreasi*, vol. 8, no. 1, 28 Jan. 2022, pp. 231-236, doi:10.5281/zenodo.5912095.

Muttaqin, Y., Hidayah, T., & Mukarromah, S. B. (2019).

Grooving the shoot free throw drill training and concentration on free throw shooting outcome . *Journal of Physical Education and Sports*, *8*(3), 288–293. Retrieved from https://journal.unnes.ac.id/sju/index.php/jpes/article/view/31274

Nurhidayah, H., Chaerul, A., & Kurniawan, F. (2022). Hubungan Tingkat Konsentrasi Siswa Dengan Shooting Undering Dalam Permainan Bola Basket Ekstrakurikuler Sekolah Menengah Pertama. *Jurnal Ilmiah Wahana Pendidikan*, *8*(23). https://doi.org/10.5281/zenodo.7417254

Ramadhan, A. P., & Irawan, F. A. (2022). Analisis Gerak *Shooting* Bola Basket Sesuai Dengan Konsep BEEF. *Sriwijaya Journal of Sport*, *1*(2), 105–117. https://doi.org/10.55379/sjs.v1i2.354

Reski, N. (2021). Pengaruh Latihan *Shooting* dengan Konsep B.E.E.F Terhadap Kemampuan *Shooting Free Throw* Bolabasket Atlet Junior PERBASI Kabupaten Bantaeng. *Universitas Negeri Makassar*, 1–12.

Riswan, Nasution, N. S., & Fahrudin. (2021). Pengaruh Metode Latihan Konsep "Beef" Terhadap Peningkatan Shooting Pada Peserta Ektrakurikuler Bola Basket SMPN 1 Sukatani. *Jspeed*, *4*(25), 49–55. https://journal.unsika.ac.id/index.php/speed/article/view/4012

Sulaiman, I., & Fajrin, A. R. (2018). PENGEMBANGAN MODEL LATIHAN MENYERANG PADA PERMAINAN BOLA BASKET. *Gladi : Jurnal Ilmu Keolahragaan*, *9*(1), 68 - 76. https://doi.org/10.21009/GJIK.091.06

Wenly, A. P., Pelana, R., & Wasan, A. (2021). Effectiveness of Endurance Training Based on Small-Sided Games Model for Beginner Women Futsal. *Gladi : Jurnal Ilmu Keolahragaan*, *12*(04), 258 - 268. https://doi.org/10.21009/GJIK.124.05

Yunitantoro, R. H., & Dr. Or. Gigih Siantoro, M. P. (2020). Pengaruh Latihan *Shooting Free Throw* Menggunakan Qube *Basketball Trainer* Pada Pemain Basket Usia Dibawah 15 Tahun. *Jurusan, S Kepelatihan, Pendidikan Olahraga, Fakultas Ilmu Surabaya, Universitas Negeri*, 1–10.