



Senam Bugar Pelajar Muhammadiyah Models to Improve The Physical Fitness Of Muhammadiyah Students

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Abstract

This study aims to produce a model of "Muhammadiyah Student Fitness Gymnastics". The developed gymnastics is expected to be used as a form of physical activity in order to improve the health and physical fitness of Muhammadiyah students. This development research was carried out with these following research steps: (1) collecting information in the field, (2) analyzing the information that had been collected, (3) developing the initial product (model draft), (4) expert validation and revision, (5) small scale field trials and revisions, (6) large scale field trials and revisions, and (7) manufacture of the final product. This research produced a gymnastic model named "Muhammadiyah Student Fitness Gymnastics for Muhammadiyah Students". Product of development research result in the form of video.

Keyword:

Senam Bugar Muhammadiyah Pelajar Models, Physical Fitness, Student.

Introduction

Physical fitness is very important in supporting activities of daily life. A person's physical fitness must be obtained to be able to carry out daily activities properly, effectively and efficiently (Novianti & Mariana, 2018). With a fit body condition, a person can carry out various activities in life properly. Fitness is also an important factor for staying healthy by having a good level of body immunity (Rozi & Arsyad, 2021). Fit is the person's body condition that does not experience fatigue, which means that after doing an activity and afterward, they can still carry out other activities. same as Senaputra (2017: 3) that physical fitness is the ability of a person to carry out activities without excessive fatigue, so that they still have the energy to carry out other activities that are emergency in nature. Physical fitness must be understandable and measurable, so that each individual can manage



the level of physical fitness to be even better. According to (Sumarni & Hasanah, 2022: 48) fitness levels can be monitored by paying attention to the resting heart rate. Thus, a fit body condition is one of the keys to living a happy life. So that a fit body condition is everyone's hope (Tri Ulan Kunarti, 2014). Even with good physical fitness can increase productivity at work (Rozi & Arsyad, 2021). In an effort to achieve good body fitness, it can be achieved with various forms, models and methods of exercising.

Physical fitness for each individual must be considered important, because benefits that are presented when a person has a good level of physical fitness can certainly increase productive activity. To achieve a good level of physical fitness, it is necessary to understand physical fitness. Physical fitness according to Wahjoedi (2001: 59-61) explained that physical fitness is divided into two where physical fitness can be related to health and physical fitness related to movement skills. One way to improve physical fitness can be obtained by training. Thus, it is necessary to plan the right, systematic and sustainable in improving physical fitness. Elements of physical fitness consist of elements of strength, muscle endurance and flexibility (Wani & Wea, 2021).

Muhammadiyah as an organization that aspires to create an Islamic society which actually has struggled through da'wah and tajdid movements in efforts to foster religious life in line with the Al Quran and Sunnah of the Prophet Muhammad SAW, as well as carrying out social renewal efforts through education, health services, social services, community empowerment. In order to realize these ideals of course a strong people is needed. From a physical point of view, being strong here means people who have good physical fitness so that they can carry out worship activities and socialize well. The pleasure of a healthy and fit body is a gift from Allah SWT which should be grateful for and cared for by Muhammadiyah students. Manifestation of efforts to maintain physical health and fitness is by maintaining personal hygiene and the school environment, adopting a healthy diet, adequate rest, and exercising. One of the sports activities that is suitable for Muhammadiyah students and can be carried out in mass and in a happy atmosphere is gymnastics.

Gymnastics is a physical activity consisting of several series of movements carried out in rhythm according to musical accompaniment. Listyasari & Wahidah (2022) explained that gymnastics is part of body exercises that are chosen and constructed deliberately, carried out consciously, planned, systematically for the purpose of increasing physical fitness, psychomotor development, and spiritual values. It was also explained that gymnastics is a physical activity that can be classified as a sport or as a means of training for other sports (Darsi, 2018). Gymnastics can be classified as affordable, mass, interesting and useful sports (Setiawan et al., 2022: 691). Many benefits can be obtained from gymnastics activities, such as being healthy, fit, happy, relieving stress, health rehabilitation. As said by (Melam et al., 2016: 294) it provides benefits in increasing the efficiency of the aerobic energy production system, as well as cardiovascular endurance.

Gymnastics has been widely known and is able to attract various levels of society so that gymnastics can be said to be a mass activity, even from all levels of society in Indonesia, they must know and like gymnastics. This is evidenced by the statement from (Ahmad, 2018) that gymnastics can be liked by all corners of the country, enjoyed by all levels of society using music and beautiful movements. From this, it is necessary to focus on the main goal in gymnastic activities. Gymnastics



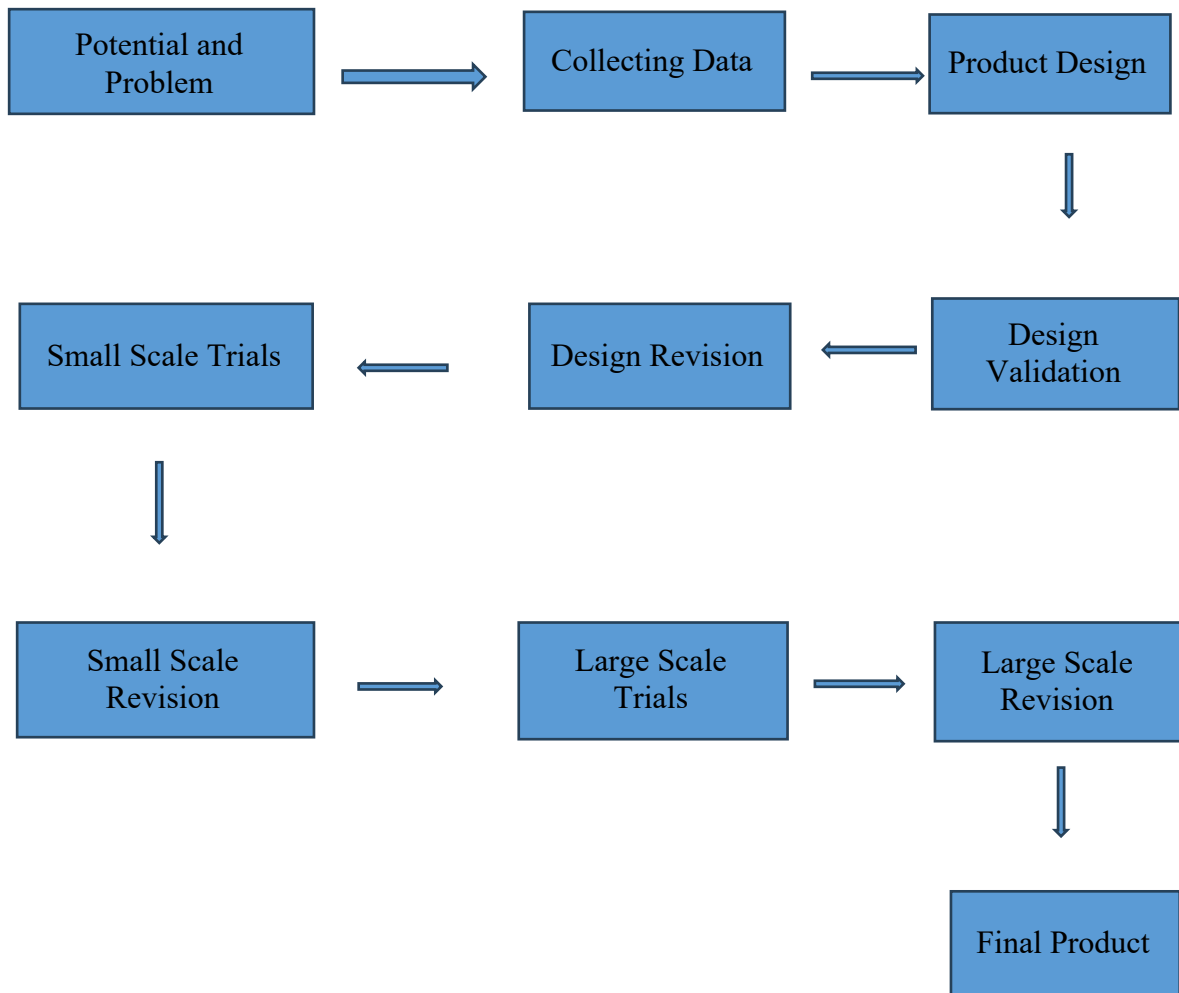
is carried out regularly, continuously and programmed, so that the goals of gymnastics can be achieved (Dwijayanti & Ferbrianti, 2021). From this, many types of gymnastics were born. There are aerobic exercises, SKJ gymnastics, elderly gymnastics. Gymnastics can also be developed to attract the interest of a group of people with a variety of models, intensities, and movements.

Priansa (2017: 188) explained that a model is a conceptual framework that will later be used as a guide for carrying out an activity. With the model we become more focused in carrying out an activity or action. Gymnastic activities can also be developed by creating a renewable gymnastic model based on the goals that want to achieved. So that with this, it can attract the interest of the community, increase the enthusiasm, excitement, diversity of the movements of the people who follow it.

In Sukabumi City, especially Muhammadiyah schools, mass gymnastic activities are routinely held in several schools on Friday (healthy Friday). The number of participants in gymnastic activities in these various places, based on researchers' observations, on average was attended by many student participants at school. Physical fitness is able to lead learning participants to get physical, mental, emotional, psychological and physical maturity so that learning participants become more enthusiastic about learning and practicing which leads to achieving the desired learning achievements. (Muhammadiyah Gymnastics Model to Improve the Physical Fitness of Muhammadiyah Members, n.d.)

Method

The research that conducted was using research and development methods or often called (research and development). Borg and Gall (1983: 772) stated that research and development is a research method for producing educational products, both products in the form of material objects such as textbooks and teaching films. Strengthened by Winarni (2018: 248) who explained that research and development is a process/steps in developing new products or or improving existing products so that they can be accounted for. Products in the form of processes and procedures found such as teaching methods or methods of organizing teaching. This was liked research that conducted by (Muslimin & Muhajir, 2022).



Picture 1. Borg and Gall product development design

This research was conducted on the Muhammadiyah University campus of Sukabumi and Muhammadiyah University Pekajangan Pekalongan campus from February 2022 to January 2023. The research involved expert validation of two exercise experts. In the small-scale and large-scale feasibility testing stages were involved Muhammadiyah students from Muhammadiyah schools that is MI Muhamamdiyah and Muhammadiyah High School.



Result and Discussion

Result

The results of research and development of the Muhammadiyah student fitness model will be described as follows:

1. Preliminary Study Stage

a. Literature Study

The preliminary research stages of development model of the "Muhamamdiyah Student Fitness Gymnastics" are to obtain information from potential users and also responses, as well as examine the materials that will be used to manufacture this exercise model. From the results of the study, physical fitness functions to improve work ability for anyone who has it so that they can carry out their duties optimally to get better results. The "Muhammadiyah Students' Gymnastics" model is a form of gymnastics that can be used as a physical exercise to increase the degree of body fitness, this gymnastics has easy movement characteristics without violating politeness ethics but physiological benefits to body fitness can be achieved. The rhythm that used in this gymnastics was Muhammadiyah students' marching songs, Muhammadiyah students' fitness gymnastics are arranged based on the systematics of gymnastics starting with warm-up, core and cool-down movements. The intensity of motion in this gymnastics is included in the sub-maximum intensity, which means the duration of time in this exercise is between 10-30 minutes with a training load of 65-80% of the maximum pulse rate. cheap, festive and bulk.

b. Field Study

There are many types of gymnastics that are often done both in the school environment and in the general public. Fitness gymnastics is a type of gymnastics that is familiar to the public because it is taught in schools. Even in Muhammadiyah schools, this gymnastics is also taught. For this reason, as a large organization with a very large number of citizens in Indonesia, there is an opportunity to develop special types of gymnastics for Muhammadiyah students by integrating the values or spirit of Muhammadiyah in the series of rhythmic gymnastics activities. The embodiment of the integration of Al Islam and Kemuhammadiyah values in gymnastic activities includes: (1) sports clothing that does not violate Islamic law; (2) get used to praying before and after activities; (3) the song or instrument that accompanies the gymnastics is the march of Muhammadiyah students song; (4) body movements that do not violate decency ethics but those movements that are anatomically motoric can be useful for improving body performance so as to improve physical fitness.

2. Development Study Stage

a. Preliminary Product Design

In this development research was a planning, both planning exercises from the movements that have been arranged until planning determines the initial product development by compiling the initial product design after obtaining permission the



researcher collects information to compose a series of music and gymnastic movements inspired by the marching songs of Muhammadiyah students and the core movement combines various movements in sports such as martial arts, volleyball, basketball etc. The gymnastic movements are methodically arranged from a warm-up, core and cool-down and considered the syari'at and characteristics that can be used by Muhammadiyah students. After composing the movements and adjusting the music, training began for demonstrators to practice the gymnastics on June 29, 2022. The next step was developing the initial product by taking pictures to make a product in the form of a video which was held on June 29, 2022 in the UMMI Campus area and on the UMPP campus. The warm-up and cool-down movements were demonstrated by UMMI PJKR students on the ummi campus and the core movements were demonstrated by UMPP students on the UMPP Pekalongan campus.)

b. Expert Validation

The researcher validated the product to the Gymnastics Expert on July 29 2022. The Gymnastics Expert was Ella Nurlaelasari, she is a national gymnastics instructor and gymnastics practitioner in the Sukabumi Regency as well as Ms. Teti haryati at the stage of validating the gymnastic model draft was assessed by providing a video along with the assessment sheet material experts. Assessment for experts (validators) using a questionnaire with a rating format using a Likerts scale: "very good" score 5, "good" score 4, "enough" score 3, "less" score 2, and "very poor" score 1 with a total 10 item questions. Data from the assessment results by the validator can be seen in tables 1 and 2 below

Tabel 1. Results of Expert Assessment (Validator) toward the initial draft of Muhammadiyah Student Fitness Gymnastics

No	Assessed Aspect	Vaidator		Average Score	Percenta ge %	Category
		1	2			
1	Integration of Al-Islam and Muhammadiyah values which can be seen by starting the activities with pray before and after gymnastic movements	5	5	5	100%	Very Good
2	Warm-up movements compatibility	3	4	3,5	70%	Good
3	Core movement compatibility	3	4	3,5	70%	Good
4	Cooling movement compatibility	4	4	4	80%	Good
5	Convenience of movement so that it can be followed by students	4	4	4	80%	Good
6	Adequate repetitions of each	3	4	3,5	70%	Good



	movement					
7	Appropriateness the tempo of the music, starting from warming up, core, cooling down, has been able to increase the pulse of the exercise	4	5	4,5	90%	Very Good
8	Movement suitability integrated with sports movements	5	4	4,5	90%	Very Good
9	Movement intensity accuracy with training load	4	4	4	80%	Good
10	The suitability of music as a characteristic of Muhammadiyah students' fitness gym astic with the music of Muhammadiyah students' Ortom songs	4	4	4	80%	Good
		39	42	40,5	81%	Good

Discussion

A small-scale test was carried out on PJKR UMMI students with a total of 4 children. The purpose of this small-scale test is to determine the level of implementation of the Muhammadiyah Fit Gymnastics model. The data taken in the small-scale test is the practitioner's assessment data (gymnastic instructor) by Ms. Tuti Haryati on the gymnastic model and there are also comments, criticisms, suggestions for improvement, and input on the gymnastic model being developed. The quantitative data from the assessment carried out by practitioners can be seen from tables 4 and 5, as follows:

Tabel 2. Quantitative Data on Small-Scale Test of Gymnastic Practitioners

Validator	Total Score	Percentage %	Category
Gymnastic Practitioner	40	80%	Baik

Tabel 3. Qualitative data suggestions for material expert improvement

Validator	Comment and Suggestion
Gymnastic Practitioner	<ol style="list-style-type: none"> 1. Generally good, can be applied to students 2. On the core it is better to make right and left 3. Moving cooling

	<ol style="list-style-type: none"> 4. Streaching heating added 5. There is no jump in the transition movement
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1. Product Revision

From the assessment of the small-scale trial, input and corrections were obtained regarding the implementation of the exercise model used. The results of the assessment instrument are feasible for testing but with the condition that there are revisions or improvements in several respects. Then the researchers made improvements to the existing product, as for improvements to rearrange on the static heating.

2. Large Scale Test

After the gymnastic model was revise according to the suggestions from the small-scale test results. At the stage of large-scale testing was carried out in several locations and research subjects with different characteristics, namely Muhammadiyah Koa Sukabumi High School and MI Muhammadiyah Cipetir. The findings from the large-scale test are as follows: In this large-scale test at MI Muhammadiyah Cipetir, the subjects are students whose average age is 7-10 years. The findings in the large-scale test at MIM showed that some participants were able to follow the gymnastic movements but there were still some students who were not correct in imitating some of the movements. So it takes several meetings to fix it.

3. Product Revision II

Based on input from several participants who were randomly selected, as well as the results of observations by Muhammadiyah Student Fitness Gymnastics instructors during the implementation of large-scale tests, improvements were made for the sake of the perfection of the gymnastics model. As for slight changes to the part before the core and after this, a transitional movement is given so as to lighten the training load.

Conclusion

Based on the explanation on the research results, the conclusions from the research on the development of the Muhammadiyah Student Fitness Gymnastics model are declared feasible. This is based on the results of expert validation which as a whole obtained an average value of 42% of the maximum value of 50. This shows the level of validity of the Muhammadiyah Student Fitness Exercise model belonging to the good/decent category. Based on the results of the small-scale test, the practitioner's assessment results obtained a value of 41 out of a maximum value of 50. After calculating the percentage, it points to 82%. This shows the level of feasibility of implementing the Muhammadiyah Student Fitness Gymnastics model in the small-scale test belonging to the good/decent category. In a large-scale test conducted by researchers, the Muhammadiyah Student Fitness Gymnastics was given to several age categories in order to get input and test the implementation of the movements in the participants Muhammadiyah high school students, MI



Muhammadiyah students. Based on input from several participants who were randomly selected, as well as the results of observations by the instructor of Muhammadiyah Student Fitness Gymnastics in the implementation of large-scale tests, although the average results of Muhammadiyah Student Fitness Gymnastics were good, improvements were still made for the sake of the perfection of the gymnastics model because it was hoped that this Fitness Gymnastics Muhammadiyah Student can be used for all Muhammadiyah Students.

Reference

- Ahmad, Z. F. dan N. (2018). Penyuluhan kebugaran Jasmani Masyarakat Melalui Senam Aerobik Di Kelurahan Dasan Geres Kabupaten Lombok Barat, 2(1),
- Borg, W.R & Gall, M.D (1983). *Education research: an introduction.4th Edition*. New York: Longman Inc.
- Darsi, H. (2018). Pengaruh Senam Aerobic Low Impact terhadap Peningkatan V02max. *Gelanggang Olahraga: Jurnal Pendidikan Jasmani Dan Olahraga (JPJO)*, 1(2), 42–51. <https://doi.org/10.31539/jpjo.v1i2.134>
- Dwijayanti, K., & Ferbrianti, R. (2021). Menjaga Daya Tahan Tubuh Di Masa Pandemi Covid-19 Dengan Senam Aerobik. *BERNAS: Jurnal Pengabdian Kepada Masyarakat*, 2(1), 392–395. <https://doi.org/10.31949/jb.v2i1.760>
- Prakoso Senaputra, P & Dolores H.N, J. (2020) Survei Tingkat Kebugaran Jasmani Siswa Yang Mengikuti Ekstrakurikuler Hoki Ruang Di Sma/Smk Se Kabupaten Sidoarjo. *Jurnal Pendidikan Olahraga dan Kesehatan*, 5 (3), 697–704.
- Listyasari, E., & Wahidah, I. (2022). Pengaruh Senam Kesegaran Jasmani 2018 Indonesia Bersatu Terhadap Penurunan Tekanan Darah Pada Ibu Penderita Hipertensi Di Klinik Melati Kecamatan Kawalu Tasikmalaya. *Jurnal Ekonomi, Sosial & Humaniora*, 3 (6), 1–5. <https://www.jurnalintelektiva.com/index.php/jurnal/article/view/696>
- Melam, G. R., Alhusaini, A. A., Buragadda, S., Kaur, T., & Khan, I. A. (2016). Impact of brisk walking and aerobics in overweight women. *Journal of Physical Therapy Science*, 28 (1), 293–297. <https://doi.org/10.1589/jpts.28.293>
- Model Senam Bugar Muhammadiyah untuk Meningkatkan Kebugaran Jasmani Warga Muhammadiyah. (n.d.).
- Muslimin, & Muhajir, R. (2022). Pengembangan Model Latihan Servis Atas Bolavoli Untuk Yuniior Berbasis Permainan. *Altius: Jurnal Ilmu Olahraga Dan Kesehatan*, 11 (2), 209–219.
- Novianti, N., & Mariana, D. (2018). Faktor Faktor yang Mempengaruhi Perilaku Lansia dalam Mengikuti Senam Lansia di Wilayah Kerja Puskesmas. *Jurnal Keperawatan Silampari*, 1 (2), 123–138. <https://doi.org/10.31539/jks.v1i2.84>
- Priansa, D.J. 2017. *Pengembangan Strategi & Model Pembelajaran*. Bandung: CV. Pustaka Setia.



- Rozi, F., & Arsyad, R. (2021). Tingkat kebugaran jasmani mahasiswa IAIN Salatiga pada masa pandemi covid-19. *Fair Play : Indonesian Journal of Sport*, 1 (1), 7–12.
- Setiawan, A., Ilham, I., & Harjono, H. S. (2022). Pengembangan Video Pembelajaran Senam Kreasi Melayu Jambi Pada Sma Negeri 12 Kota Jambi. *Jurnal Manajemen Pendidikan Dan Ilmu Sosial*, 3 (2), 689–695. <https://dinastirev.org/JMPIS/article/view/1131%0Ahttps://dinastirev.org/JMPIS/article/download/1131/695>
- Sumarni, S., & Hasanah, L. (2022). Pendampingan Senam Lansia Di Desa Kolor Kabupaten Sumenep. *Jurnal Abdimas Bina Bangsa*, 3 (1), 47–51.
- Tri Ulan Kunarti. (2014). Pengaruh latihan Senam irama terhadap peningkatan kebugaran jasmani . *Jurnal Penjaskesrek*, 2 (2).
- Wahjoedi. 2001. *Landasan Evaluasi Pendidikan Jasmani*. Jakarta: PT. Raja Grafindo.
- Wani, B., & Wea, yovinianus M. (2021). Survei Tingkat Kebugaran Jasmani Siswa Ekstrakurikuler Sepak bola SMP Citra Bakti. *Sport Science and Health*, 3 (5), 10876–10882.
- Winarni, E. W. 2018. *Teori dan Praktik Penelitian Kuantitatif, Kualitatif, PTK, R&D*. Jakarta: Bumi Aksara.