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Salam hangat,
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Prof. Dr. Titik Taufikurrohmah, M.Si

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Manufacture of Unesa's Aerobic Dance

1st Nur Ahmad Arief, M.Pd.
Department of sport education
Surabaya State University
Surabaya, Indonesia
nurarief@unesa.ac.id

2nd Prof. Nurhasan, M.Kes.
Department of sport education
Surabaya State University
Surabaya, Indonesia
nurhasan007@unesa.ac.id

3rd Kunjung Ashadi, M.Fis., AIFO
Department of sport coaching
Surabaya State University
Surabaya, Indonesia
kunjungashadi@unesa.ac.id.

***Abstract*—Unesa aerobic dance have different characteristics from other models. The advantages of this include the movement pattern that is in line with the development of a more energetic era, which makes the participants more enthusiastic in participating, music follows an energetic and trending beat pattern among the latest music. Unesa aerobic dance model has 3 variations of intensity at the same time in the core movement. The purpose of making Unesa aerobic dance to increase pleasure in exercise, indirectly people's fitness will increase. This research is development research in the hope that it will have an impact on rural communities to change their healthier lifestyle through universal aerobic. This research has 10 stages in achieving products that are made for. The sample used was all Unesa residents consisting of students, employees and lecturers. The making of Unesa aerobic movements and music incorporate elements that are trending today and are unique to Unesa. The aim is to increase motivation and facilitate movements learned for dance participants. The research process included the making of a movement followed by the determination of music and the making of guidebooks in the Unesa aerobic dance. The results of the study reached the stage of making dance movements including heating, core and cooling. So it can be concluded that the process of making Unesa dance movements has run smoothly until the third stage, namely the product design of dance movements. Later, the completion of all stages of the movement will continue and continue with the making of music.**

Keywords— music, movement, aerobic , dance, fitness

I. INTRODUCTION

The making of aerobic exercise has several 3 basic stages in the design, namely the heating stage, the core stage and the cooling stage. Each stage has a different type of music. In addition, the intensity at each stage is also different. This is based on the stages of movement that are formed. The stages of heating and cooling with low impact intensity, while the core stages are designed with medium-high-medium impact intensity. The basis of movement at each intensity is the participant pulse during the exercise.

Aerobic exercise is one way to move or exercise the body by utilizing a small land and a pleasant situation because there is music and beat that is different for each stage of heating, core and cooling. Aerobic exercise has several types including zumba, jazzercise, ballroom dancing, belly dancing, hip hop aerobics, step aerobics, aqua dance arobic, ballroom dancing, break free dance, and pump it up aerobic dance . However, basically aerobic exercise used by the wider community is aerobic step or often called aerobic dance. The purpose of applying aerobic dance itself is to become one of the substitutes for a more enjoyable exercise than monotonous sports such as running and game sports, which are basically the two types of sports not accompanied by music, so it is easier to make people bored. The benefits of aerobic exercise, in addition to reducing boredom, also provides many opportunities to communicate with fellow participants. This gives better psychological effects in relationship participants. The results of several studies indicate that related to the application of one type of Zumba aerobic exercise which explains that the influence of Zumba dances on aspects of physical fitness, physiology, and psychology, another study showed an increase in Quality of Life or quality of life by doing 8-12 weeks of Zumba exercise on students female [1], female overweight reduction [9], at the end of female menopause [10].

Based on the above, the Surabaya State University created aerobic dance with several advantages, namely music and beats that are used according to trending today, the type of movement is more varied. This makes Unesa exercise have different characteristics from other aerobic exercises. These advantages provide new motivation for participants in loving the body to keep moving it. In addition to the motivational factor, the benefits provided to the participants' fitness will increase so that it will increase productivity in working for all citizens of Unesa.

II. METHODS

This research is a development study with 10 stages in the process of making its products. The stages adopted by Borg and Gall [7] consist of problems and potential, data collection, product design, design validation, design revision and product development, product testing, product revision, implementation, product revision, and product installation. So far, research has reached the third stage of product design.

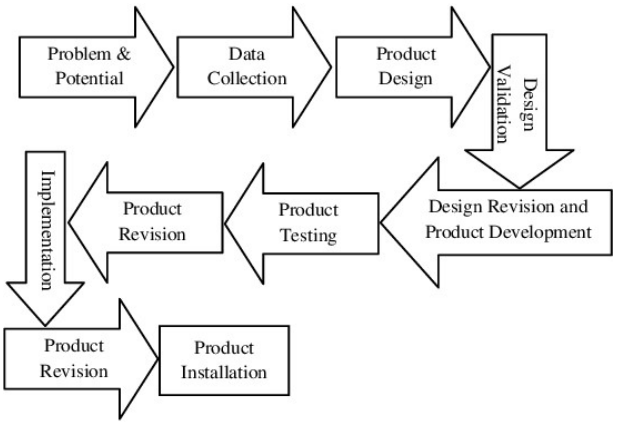

Figure. 1 Design and Development Step

The first stage that has been done is the problem and potential, which is related to the decline in unesa residents in sports, so that the level of work production has not reached very good levels. this is very different from the potential of sports facilities and sports infrastructure owned by Unesa which is so complete. The second stage of data collection, in this section data collection related to literature and basic data related to research has been carried out in the form of the low number of people who exercise, especially in maintaining physical fitness. The third stage of product design, in this section the researcher is designing a choreo movement and selection of music and trending beat at this time. Choreo movements are carried out if the team is experienced in their fields as dance instructors and academics. While making music dance is assisted by a music editing team that already has experience in making music or tones. Please note that in the third stage of making music and beat is the first process then adjusted to the movement. In the fourth stage, the end each movement and music will be validated first, before trial of movement dance and music. The fifth stage of design revision and product development is carried out after the motion and music trial stages. This stage is a revision process and produces dance products. The sixth stage of product testing, at this stage Unesa dance was tested by a team of trainers by detecting heart rate by using a heart rate monitor to test the movements made at the heating, core and cooling stages. The seventh stage of product revision, the results of trials on member of research team, needs to be revised movements and music so that more matches between the movements and the music made. The eighth stage of implementation, this process is testing a small sample of the residents of Unesa, especially on the employees and students of the Faculty of Sport Sciences, at the time of the morning sports schedule precisely on Friday morning. The ninth stage of product revision is to revise products that have been tested on a small sample. The tenth stage of product installation, at this stage, is making video clips and printing manuals for implementing Unesa dance, so that they can be distributed to all residents of Unesa.

A. *Subject*

The research sample consisted of two categories: small samples and large samples. A small sample is fio unesa residents who follow the morning exercise schedule on Friday. The sample consisted of employees and lecturers who had age differences quite far between the two. While the large sample is all residents of Unesa who take part in morning exercises conducted in front of the Unesa rector. The sample consisted of Unesa leaders, lecturers, employees, and students. The sampling technique used was purposive sampling with the criteria of the people of the village and those who followed.

B. *Heart Rate Monitor*

The heart rate monitor is used to detect the participant's heart rate during the Unesa aerobic exercise. The purpose of this trial is to test the results of the heart rate at each stage whether it meets the target or exceeds. This tool uses polar H10 products connected to the iPad. The process of implementing the strap heart rate monitor is mounted on the participant's chest without touching the fabric on the inside. Then the profile settings of each participant on the iPad and continued by pressing the start button to run the application.

C. *Intensity of Unesa Aerobic Dance*

Unesa aerobic movements have 3 intensities in implementation at each stage. The stages of heating and cooling are carried out with a low impact program with a heart rate limit between 130-150 beats / minute. Whereas the core stage consists of two movement programs, medium impact and high impact. Medium impact consists of the beginning and end of core movements with a heart rate range of 151-170 beats / minute. High impact is found in the center of the core movement with a heart rate range of 170-180 beats / minute.

III. RESULT

The results of this study have not yet reached the final stage, but are still at the third stage, namely the design of the choreo movement. The making of this movement consists of warm, core and cooling movements. The warm-up movement consists of head to toe movements to prepare the body for the core movement with up to 16 movements and the intensity used is low intensity or low beat. Core movements consist of mild movements to higher movements and end with mild movements and with medium-high-medium beats. The last move is a movement completed with a few movements that are done with a low beat. The movement made has a specificity that is owned by Unesa by including the movement of the martial arts sport branch. this sport shows typical movements of Indonesian sports. The next stage in the validation of the movement will be done through a group discussion forum with dances experts. After it is finished, it will be continued by making music that incorporates Indonesian identity with a beat that shows the spirit of exercise.

IV. DISCUSSION

Unesa aerobic manufacturing is the first product from state universities in Indonesia related to community sports models that have their own advantages compared to other aerobics. Basically aerobic is a sport that involves and music. This activity is often used by people to exercise by dancing. Dancing is a model of physical activity that parents might do to improve their physical functioning, health and well-being.

Dancing is a multidimensional physical activity and is also a perfect approach to improve physical fitness and the development of social abilities thereby improving mental health [5]. Belardinelli et al. [6] the results of his research show that Waltz dancing is safe and increases functional capacity and endothelial dysfunction. The benefits of dancing or aerobic can increase muscle tone, strength and freshness, endurance, balance, and general feeling of well being [4]. In addition the results of a recent study by Delextrat et al., [1] related to aerobic of the Zumba type explained that the implementation of Zumba for 8 weeks can improve aerobic fitness and good psychology in adult women's health.

is a mind and body experience that increases blood supply to the brain, provides an outlet for releasing emotional expression, followed for creativity, and aspects of socialization in reducing stress, depression, and

loneliness. Stress reduction also seems to occur by rs at the time, as if the is a magic bullet that gives pressure and tension that is empty when immersed in the routine. In addition, it also requires memorizing steps / routines and working with a partner, factors that present the challenges needed by the brain to maintain health. It has long been known that this type of exercise produces high endorphins, so it can be the basis for improving the mood observed in those who exercise; also provides the same type of response from mood enhancement.

Aerobic is one of the sports groups that is easily modified every movement. That is what makes aerobic has many types of basic techniques in its implementation, namely basic step, v step, touch step, mambo, box step, and grapevine [2]. This basic technique is usually used in low impact movements. But even so, there are some basic techniques above that can be used in high impact such as after the hops or jumps movement can be followed by double step touch movements. The step V moves forward with two steps and the backward motion can be modified with two backward hops [3].

V. CONCLUSION

based on the results of research that the development of research to the design phase of dance movements consisting of 3 types of movements namely heating, core, and cooling movements. It should be noted that the making is still in the third stage of the 10 stages that will be implemented. so it takes quite a long time to complete the process of making Unesa aerobic dance up to the stage of making video clips and Unesa aerobic dance movement guide books.

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