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Sport Science Faculty
Semarang State University, Unnes
Gd F1 Kampus Sekaran Gunungpati Semarang,
Indonesia 50229
<https://fik.unnes.ac.id>
email: isminaunnes2013@gmail.com
Phone/fax: +6224-858007, Mobile: +6285641537753

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THE IMPLEMENTATION OF ARCS EXERCISE MODEL TO INCREASE EXERCISE MOTIVATION OF JOGJAKARTA ARCHERY PUSLATDA ATHLETES

Ermawan Susanto
Yogyakarta State University
ermawan_s@yahoo.com

Abstract

The main goal of this research is to create exercise process design which is then used to increase and to repair (improvement and therapy) exercise motivation problems of national sport athletes in province. The research uses the design of sport action research which is improved from class action research by Kemmis and Mc. Taggart (1998). There are 3 cycles for observed and each cycle consists of 4 surveys and 4 activities: planning, action, observation, and reflection. There are 12 ARCS model actions for coaches and archery athletes. The subject of research is an archery coach who implements ARCS exercise model, and the object of research are 18 archery athletes of puslatda PON XVIII with that model. The instruments of research are athlete observation sheet, coach, and questionnaire before and after use the ARCS exercise model. Based on the analysis and data interpretation and also the general discussion, it is concluded that ARCS exercise model can increase exercise motivation of athletes in DIY. The indicator of this increasing could be seen from the changes of athletes' behavior in aspects: attention, enthusiasm, concentration, and discipline. The score of final test in archery is also increase. In cycle I, there are still cannot be seen some ARCS components in exercise like relevance, confidence and satisfaction. In cycle II, two ARCS components which are not show up are attention and confidence. In cycle III, all ARCS components implemented by coach. Therefore all ARCS components have been implemented by coach and it could change athletes' behavior so they have more attention, more passion, more concentration, and more discipline.

Key Words: Implementation, ARCS exercise model, motivation, archery athlete.

INTRODUCTION

Sports as strength development is closely related to the formation of the whole person productive, competitive, and have a competitive advantage, is expected to contribute to the achievement of peak performance in sports nationally and internationally. Success or decline of sporting achievement in a country can not be separated from the role of coaching achievements in the area / province. With regard to the attention of the coaching sports

achievements should be directed to the pockets of regional development. Weak resource athletes, coaches, facilities, and systems training faced by the current provincial government must be overcome by making systematic planning, regular, with clear parameters.

It is undeniable that the mastery of science and technology (Science and Technology) was instrumental in the advancement of the sport. The role of science and technology in improving the





athlete's performance is believed to be able to overcome the adversity of national sporting achievements. It is listed in Article 20, paragraph 3, Article 27, paragraph 3 and Article 74 Section 1,2,3,4,5 Sistem Keolahragaan Nasional Act 3 of 2005. Indonesia's sports achievements in the event the SEA Games, Asian Games, Olympic Games over the years have ups and downs. However, the condition of national sports achievement is accelerating slower than other countries such as China, Japan, Korea, and even Thailand, so the condition of sports in Indonesia, particularly sports coaching achievements are still far from what we expect (Muthohir , 2004: 47 - 48). If it is not immediate professional efforts in handling, the Indonesian sporting achievements will be far behind the sporting achievements in other countries. Efforts to improve performance in sports need to be implemented in order to compete with other countries. The Government has outlined that in order to build or having an outstanding athlete takes a long-term development that require a treatment in a systematic, purposeful, planned and carried out consistently and at an early age. At least it is starting to look a little on the achievements of Indonesia to become the overall champion for the 26th SEA Games in Jakarta and Palembang.

Special Region of Yogyakarta (DIY) in 2009-2012 has set a 5 (five) national sport featured in the developed regions in the level of achievement in Asia. Fifth, among other

sports; Archery, Beach Volleyball, Cycling, Tae Kwon Do, and Wushu.

DIY for fifth makes the sport as a sport has been proven superior than his achievement is also due to the availability of the carrying capacity of the human resources, the support of educational institutions that provide facilities and infrastructure, which is regularly held event match, and geographical location support. Besides the PPLP and PPLM some sports that are managed by the Department of Education and Sport DIY, stub classes in junior high and high school sports to give the feel of a healthy competitive for national flagship sports coaching achievements in the area. In fact, there are concerns with the amount of carrying capacity that has not been functioning optimally. The indicator is the emergence of coordination problems between the board, the less optimal training, lack of motivation from coaches to athletes, less than optimal performance of athletes during training, the low quality of the implementation of exercise programs, and a lack of process and outcome evaluation tool training.

Based on preliminary studies that the researchers did on 3 to 10 April 2011 through field observations and interviews with leading sports coaches nationwide in DIY, it is known that the problem of motivation in the following practice Puslatda PON XVIII is a serious problem faced by the coach on the field. Archery coach who is one of the leading national sport, athletes reveal about the motivation to practice is still low. Proven





achievement but even during the training process is not carried out in accordance with the values of discipline and seriousness. Facts on the ground indicate there is still the athlete came late, less serious, and tend to be lazy at practice. This situation is also carried in the daily lifestyle of the hedonistic athletes.

The results McClelland (1997) showed that people who excel (managed with superior predicate) has profiles/characteristics, among others: (1) In general avoid achievement goals are easy and difficult, they actually prefer a moderate goals that they think will can be realized or achieved, (2) More like immediate feedback and can be relied on how they perform, (3) liked responsibility in solving the problem. In education, the results of research among students McClelland proved that achievement motivation contributes up to 64% on student achievement. Results for archery team try out the DIY contingent on some event before the execution of PON, as in Popnas X in 2011 that most of his athletes prepared for PON 2012, failed to meet the target of the gold medal. Recognized by trainers that defeat the DIY contingent fault of athletes is related to the factor of experience playing and competing athletes mentally weak.

The results of Hadinata (in Adisasmito, 2007) states that (1) the general Indonesian athletes have less confidence in the ability, (2) lack strong motivation to become champion, (3) fear losing and tense, (4) fear not can play well, (5) lack the

motivation to become champion in the exercise so that it looks less vibrant and less discipline, and (6) a lot of athletes who are satisfied have become part of the national team or feel the ultimate goal has been reached. Based on the opinion of the above can be said that the lack of self-confidence (self-efficacy) on the ability and achievement motivation to be the main cause of decreased performance athletes. Many efforts are directed to improve the motivation of athletes with the aim that the athlete can be motivated to excel. Currently the impact of motivators are still yet to be seen or felt. This may also be due to the formulation itself is less clear motivation for some people. Many people assume that by raising morale alone is enough to raise achievement motivation, but not enough.

In this regard, the findings with respect to some of the problems faced by the coach on the field, this research will try to apply a training model called the ARCS model of training in the national flagship sports in the area. ARCS model (Attention, Relevance, Confidence, Satisfaction), developed by Keller and Kopp (1987: 2-9) as the answer to the question how to design a training process that can influence motivation to practice and achievement. "The ARCS Model focuses on the conditions Necessary to be sustained to keep the learner interested in the topic" (Fernandez, 1999). Therefore, this research is very important to provide empirical findings in the form of an increase or improvement (improvement and Therapy)





on the performance of athletes during training or the training process especially in a sport Archery is one of the national sports featured in DIY.

METHODS

This study uses action research design exercise developed from classroom action research by Kemmis and Mc. Taggart (1998). Implementation is planned as much as 3 cycles, each cycle consisting of 4 times face to face. Each cycle consists of four activities, namely: Planning; action; observation, and reflection. This is a research subject is 1 archery coach as the coach who apply ARCS training model, and the object of study is 18 male and female athletes archery Puslatda PON XVIII are subject to the training model.

RESULT

Observations on the implementation of archery exercises that took place in three cycles with 12 meetings referred to above shows that the model is applied to the ARCS training materials archery training can improve attention, spirit, concentration, and discipline. Measurements with a Likert scale questionnaire done to all the athletes who were 18 people concerned about their attitudes in archery training process before being given the ARCS model of training and after the training given ARCS models. The tenth item questionnaire revealed the following matters : (1) I gained the confidence to follow the archery range, (2) I am interested in following the archery range, (3) I am satisfied in the following archery range, (4

) I get clear goals and objectives in practice archery ; (5) I was given feedback on the work done, (6) I was assessed by objective and fair in during the archery range, (7) I was given the opportunity to evaluate the exercise friends, (8) I was given the opportunity to evaluate their own, (9) I discovered the benefits of practicing archery for athletes of life for both present and future, (10) I believe archery is a branch that could contribute medals in the 2012 PON Riau.

Based on the calculation above shows that there is a difference in attitude or response to exercise archery athletes before and after exercise were given ARCS models. The difference is very significant because the $t_{count} = 9648$ is greater than $t_{table} = 2.110$ at the 0.05 significance level. This result implies that the attitude or response of the better athletes on the archery range, after being given the ARCS model of practice. Meaning they gain the confidence to follow the practice of archery; those interested in following the archery range, they are satisfied in the following archery range, they get a clear goals and targets in archery practice, they were given feedback on the work done; their assessed by objective and fair in during the archery range; their friends were given the opportunity to evaluate the training, they were given the opportunity to evaluate their own, they find the benefits of practicing archery for athletes of life for both present and future, and they believe that archery is a branch could contribute medals in PON Riau 2012.





Further data analysis to compare the response of athletes are categorized as good, fairly good, poor, or both before and after the archery range with ARCS model of

training, the athlete respondent data were analyzed with SPSS 19 series and obtained the results as shown below:

Table 1. Criteria categorization of athlete answers

Skor Mean Ideal	Skor Maks Ideal	Skor Rata-rata	SD Ideal	Rentang Skor	Klasifikasi
10	40	25	7.5	33 - 40	Baik
				25 - 32	Cukup Baik
				17 - 24	Kurang Baik
				10 - 16	Tidak Baik

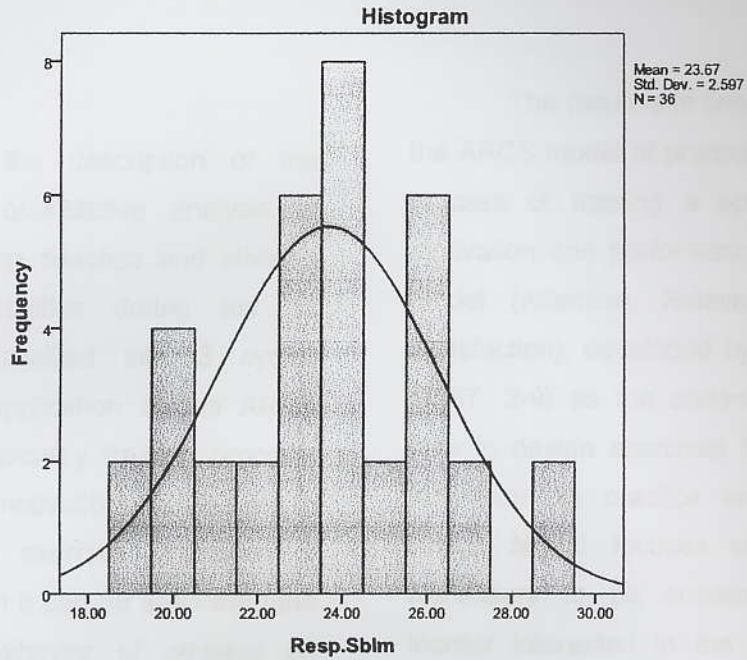
Table 2. Results of the analysis of the attitude / response to exercise archery athletes before and after exercise ARCS model

Sikap/Respon Atlet Terhadap Latihan Panahan	Frekuensi Jawaban Responden	Persentase (%)
Sebelum menggunakan model ARCS :		
Kurang Baik	8	44.3
Cukup Baik	10	55.4
Sesudah menggunakan model ARCS :		
Cukup Baik	12	67
Baik	6	33

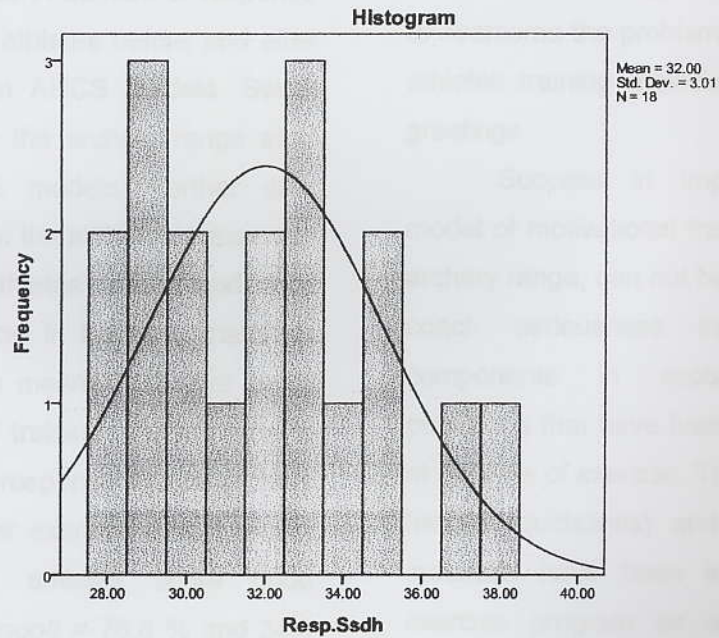
Based on the results of the data analysis showed that the attitude or response of no change in athletes before and after using the ARCS model of training in archery practice. This means that after using the ARCS model of training athletes have a positive attitude or response. Indicator after

exercise ARCS model response is pretty good athlete and a good 67% 33%. While athletes who have a poor response and no one, not good. Graphical comparison of the attitude or response of the athletes listed on the histogram chart below





Picture 1. Histogram athlete response to the archery range before using the ARCS model



Picture 2. Histogram athlete response to the archery range after the ARCS model





DISCUSSION

Based on the description of the observations and quantitative analysis of activity when training coaches and athletes during training activities during the 12 meetings were classified into 3 cycles showed that the application of the ARCS model of practice archery training process, can increase the motivation of athletes to participate in the exercise. Indicator of increased motivation it can be seen from the changes in the behavior of athletes on aspects of attention, spirit, concentration, and discipline which was higher than before using the ARCS model of practice. The observation is corroborated by the results of a quantitative analysis which shows that there are significant differences in attitude or response to exercise archery athletes before and after exercise were given ARCS models. Better athlete response to the archery range after being given ARCS models. Further data analysis results show the attitude or response of no change in athletes before and after exercise ARCS model in following materials archery range. This means that after using the ARCS model of training athletes have a positive attitude or response to the archery range. Indicator after exercise ARCS model response obtained athletes score good enough category = good = 76.6 % and 34.4 %, while athletes who respond less well and no one, are not good.

The result is in line with the theory of the ARCS model of practice that apply in the process of training a sport, can improve motivation and performance athletes. ARCS model (Attention, Relevance, Confidence, Satisfaction), developed by Keller and Knop (1987: 2-9) as the answer to the question how to design exercises that can influence motivation to practice and perform. "The ARCS Model focuses on the conditions Necessary to be sustained to keep the learner interested in the topic" (Fernandez, 1999). Through collaborative action between lecturers and trainers, ARCS exercise as models that have resulted from this research can be used as a basis for implementing coach credible form of archery training well. This result is also significant as an alternative to overcome the problem of low motivation of athletes training especially archery practice greetings

Success in improving the ARCS model of motivational training athletes at the archery range, can not be separated from the coach seriousness in applying ARCS components in accordance with the provisions that have been agreed. It appears at the time of exercise. Training program as a handle (guidelines) and their coach other materials have been well prepared. Grip exercise program as a coach has been structured such that the exercise program containing ARCS components that include attention, relevance, confidence, satisfaction.





All of it has been applied by the coach to arouse the attention of athletes (assurance), conduct relevant activities (relevance), instilling confidence athlete (confidence), and ownership valued in athletes (satisfaction). Coach has done all of these components with the strategy or training methods used, along with equipment used exercise facilities.

In more concrete practical applications ARCS model of the components in the archery range has been implemented, for example in applying the first component of attention (attention), the coach told me something interesting before practice begins to attract the attention of athletes during training process. At this component tells the story of a successful coach Lance Armstrong, cycling world champion who at first it had testicular cancer. However, due to the determination and God's miracle he managed to recover and succeed as a bike rider. The coach also has to pay attention to the athletes to participate actively in the discussion invites athletes to choose the training materials will be made. At this stage the proposed training athletes focusing, which is one of the mental training exercises to practice concentration. One form of exercise is an exercise focusing watching the clock face. During this exercise, athletes are always controlled to determine the success of the practice of concentration. For athletes who have succeeded in the exercise coupled with a more difficult level is to listen to music, to listen to the news, or by talking with the coach. Implementation of this exercise is that

athletes can gain the attention of the coach by choosing what training is needed to overcome its shortcomings.

On other activities, coaches give attention to a variety of styles to train athletes. At this stage the coach teaches imagery exercise. Exercise imagery (mental imagery) is a form of mental exercise in the form of self imagery and movement in mind. Benefits than exercise imagery, among others, is to learn new movements or repeat; rectify a wrong move or rudimentary; simulation exercise in mind; exercises for the moderate rehabilitation of injured athletes. This imagery exercise is often equated with visualization exercises because the same conduct movement imagery in the mind. However, in the imagery of the athlete not only 'see' the movement itself but also sense of hearing function, touch, smell and taste. To be able to master the imagery exercise, an athlete must be proficient in performing relaxation exercises first. This implementation is intended to be an athlete can solve the given problems related to motivational trainer workout.

In the second component of relevance (relevant), which relate to the life experiences athletes either now or who have owned or related to current career or future, has been applied correctly. Coach suggested objectives that must be achieved before training athletes. At this stage the coach to set goals such as diaphragmatic exercise (zen breathing). Good breathing is a fundamental factor in shaping concentration.





Good breathing is not only a source of relaxation, but it can facilitate the appearance and increase the amount of oxygen in the blood is useful for cleaning the remnants of disposal. One good method of breathing is done for archers zen breathing method. This method emphasizes breathing exercises diaphragmatic breathing method diaphragma is slow and relaxed than the upper chest breathing. Breathing in diaphragma will reduce blood pressure and pulse rate drop that produces anxiety. Another activity, coach gives concrete examples during training came in the form of rehearsal early, helping prepare archery equipment to be used, do apersepsi before exercise, and provide an evaluation after the workout. On one occasion the coach also shot on target. It is intended to motivate athletes and demonstrate the skill being trained.

Coach also convey a message or story about rewards to be gained if the athletes perform in events such as PON, SEA games, Asian Games, or the Olympics. Athletes not only earn the bonus money from the government but it is also possible to obtain a home or a job as a civil servant. In addition to the athletes who can achieve high performance is very likely to obtain rewards of sponsorship or advertising. The achievement will be obtained if the athlete earnest and consistent in training and attending various archery events at the regional and national levels. This expression has been delivered, both before and after exercise.

The third component of confidence (confident), the coach gave a difficult task but it is quite realistic for athletes. In general practice performed archery Puslatda athletes practice archery by practicing archery is the national round of individual events such as the distance of 30 meters, 50 meters, 60 meters and 70 meters. This exercise is done with a horizontal position or standing. In one of the component elements of this attention that can be given is a variety of exercises. Researchers with the coach and athlete representatives held discussions to provide a variety of exercises related to the material that is archery anchor points in a traditional style or seated position. This practice is still focused on the material accuracy of archery. The goal is still the same as the national round of archery practice. The coach also showed video tapes or portrait sportsman who has been successful. However, this activity is carried out directly in conjunction with the implementation of the National Student Sports Week (Popnas) XI in Pekanbaru Riau. Opportunity was used to study the profile athletes who competed. In this activity DIY sending 12 athletes who fell in various numbers.

Trainers also bring someone famous in a field as a speaker. According to the agreement between the researcher and trainer in the third cycle, then are brought senior DIY archery coach, Mr Sukarto quite have the "name" , both in Yogyakarta province and national arena. He is a coach, mentor, and lecturer, and former chairman of





Perpani DIY experience of playing and organization. The coach was introduced to the athletes before the practice begins to then share their experiences as well as motivate the athlete to have a positive attitude and self-confidence. The coach was given a good opportunity to motivate athletes during exercise routine especially when athletes nearing the match.

The fourth component of satisfaction (feeling rewarded), which is related to the feedback given to the athlete or coach instead of athletes to other athletes, also operate correctly. This method has been carried out with the coach paid tribute to athletes if it succeeds in doing certain techniques. Coaches give praise to the athletes if successful in doing certain techniques. This activity is carried out to provide reinforcement for athletes to feel appreciated. Simple sentence phrase used is "good" , "amazing", "great", "nice", "keep ", "excellent" .

CONCLUSION

Based on the analysis and interpretation of data as well as the general discussion can be concluded that the ARCS model of exercise can increase the motivation of athletes practice archery DIY. Indicator of increased motivation it can be seen from the changes in the behavior of athletes in the following aspects: attention, spirit, concentration, and discipline which was higher than before using the ARCS model of practice. Study the application of the ARCS

model of practice is limited to archery athletes. So that their emergence can be felt more widely researched need to be applied to other sports athletes that have different characteristics both psychological and physical aspects of archery athletes.

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