

**THE EFFECT OF PETTLEP IMAGERY MENTAL EXERCISE ON ROCK
CLIMBING RESULTS FOR THE PIONEER CATEGORY**
(Experimental Study on Pandeglang Regency Rock Climbing Athletes)

Septi Citra Permana

STKIP Mutiara Banten
jurnalstkipmb@gmail.com

Abstrack. The purpose of this study is to compare the effect of PETTLEP Imagery and imagery relaxation on rock climbing results in the stub category. This study uses an experimental method with the Randomize Pretest-Posttest Control Group design. The sample in this study were 20 rock climbing athletes. The results of the analysis and calculation of the data revealed that the PETTLEP Imagery training model and imagery relaxation had a significant influence on the results of rock climbing. However, the PETTLEP imagery exercise has a higher and more significant influence on the relaxation of the imagery on the results of climbing athletes in FPTI Pandeglang Regency.

Keyword : PETTLEP Imagery, rock climbing

PRELIMINARY

Imagery is a form of simulation that is similar to real sensory experiences such as seeing, feeling, or listening but all of them occur only in the mind (Weinberg & Gould, 2011). In the process of imagery training an athlete will put each movement in accordance with the limbs working in his mind by imagining, so that the nerves that move the limbs will get used to a technique that is being learned in his mind.

Several studies have shown that Imagery is a form of mental training that can improve physical, physical and psychological skills (Afrauzeh et al. 2013; Mousavi, 2011; Farahat et al. 2004; Callow et al. 2013; Hamrouni et al. 2015; Tracey J. Devonport, 2006 ; Barghi et al. 2012; and Lori A. Ansbach, 1989). Research on imagery was carried out by Afrauzeh et al. (2013), (Smith, Wright, Allsopp, & Westhead, 2007). Physical training coupled with PETTLEP imagery shows higher scores compared to traditional physical exercise accompanied by imagery and physical exercise without imagery and easier to do (Anuar, Williams, & Cumming, 2016), imagery can improve performance in young athletes (Simonsmeier & Buecker, 2017), and imagery can help athletes increase motivation and self-confidence (Gregg & Hall, 2006).

However, imagery in its application has several weaknesses such as Imagery making anxiety higher, Imagery directly influencing factors that do not support, and Imagery being out of control, for example, failing to imagine a shadow (Weinberg and Gould, 2013)

In this connection, based on some of the results of his research Holmes and Collins (2001) developed an imagery model called PETTLEP imagery based on theory and research. PETTLEP is a guide to imagery so that imagination is similar to the actual situation (Holmes and Collins, 2001; Wright and Smith, 2009; Afrauzeh et al. 2013; Smith et al. 2008). PETTLEP is a way to convey or method of doing

imagery. PETTLEP itself is a combination of components from: Physical, Environment, Timing, Task, Learning, Emotion, and Perspective.

Physical requires imagery to be a physical activity such as sports (Holmes & Collins, 2001; Wakefield & Smith 2012). Bringing up the kinesthetic sensation when imagery, besides that it is also recommended to wear clothes that are usually worn when doing the activity or a match and use objects that have something to do with the movement being imagined.

Environment refers to where the imagery is performed (Holmes & Collins, 2001; Wakefield & Smith 2012). Imagery place must be made as closely as possible to the place where the sport is carried out. Video, audio and photos can be used as a tool to help imagine a place.

Task is related to a specific task and is appropriate to the athlete's skill level, especially regarding focus and concentration (Holmes & Collins, 2001; Wakefield & Smith 2012). For example, advanced tennis athletes focus on hip rotation while beginner tennis athletes focus on wearing the ball and racket head.

Timing is related to the time of completion of the motion task (Holmes & Collins, 2001; Wakefield & Smith 2012). To get the equality of imagery and motion functions, then the speed of movement when imagining must be the same as the original movement (real time).

Learning relates to the adaptation of imagery content to the stages of learning (Holmes & Collins, 2001; Wakefield & Smith 2012). The athlete's skill which increases from week to week is considered by this concept. The imagery script in PETTLEP is changed every week to match the athlete's skill level.

Emotion. In fact sports competition is a physical activity that involves emotions (Holmes & Collins, 2001; Wakefield & Smith 2012). For this reason imagery must bring up the same emotions as the actual sports situation. For example

sports targets or bring up a feeling of tension when competing.

Perspectives in PETTTLEP use an internal perspective (Holmes & Collins, 2001). The internal point of view is imagining motion from our own eyes, while the external point of view is illustrated by the athlete imagining seeing himself doing sports. External viewpoints such as athletes see a video of themselves exercising. PETTTLEP Imagery exercises have been proven to improve performance in golf (Smith et al. 2008), netball (Wakefield & Smith, 2009), muscle strength (Wright and Smith, 2009) and volleyball (Afrauzeh et al. 2013).

Meanwhile, as far as the author is aware, the use of PETTTLEP imagery in mastering rock climbing skills has not been found by the author. Therefore, the authors will test the effect or effectiveness of PETTTLEP imagery in rock climbing.

METHOD

Participants

The sample of this study were all twenty rock climbing athletes in Pandeglang Regency.

Instruments

Evaluation of Climbing Results

Evaluation of rock climbing pioneering according to FPTI regulations (2013).

Procedure

The research method used was an experimental method with a Randomize Pretest-Posttest Control Group Design design, while the details of the research implementation were carried out from 4 May 2017 to 26 May 2017, 3 times a week for 4 weeks.

RESEARCH RESULTS

The research data were analyzed by Manova with the help of SPSS 20. Following is the summary of the calculation results in table 1:

Table 1: Research Results Data

Climbing	
Experiment	Control
4,9	3

The test criteria is if the value (Sig) <0.05 then H_0 is rejected, whereas if the p-value > 0.05 then H_0 is accepted. In accordance with the analysis results obtained by the F value in the Lambda Wilks test of 4.244 and significant at p_value 0.032, because the p_value value is smaller than the alpha value (0.032 <0.05) then H_0 is rejected. In other words, the PETTTLEP Imagery training model and imagery relaxation have a significant influence on the results of rock climbing together.

Based on the analysis results obtained t value in the column equal variances assumed 2.310 and significant at the p_value value of 0.033, because the p_value value is smaller alpha (0.033 <0.05) then H_0 is rejected, in other words there is a significant difference between PETTTLEP imagery and relaxation exercises imagery of athletes' rock climbing results (Hypothesis accepted). In addition, the descriptive analysis results obtained an average gain value in the PETTTLEP imagery exercise group of 4.9 and imagery relaxation of 3, it shows that the PETTTLEP imagery exercise had a higher and significant effect than imagery relaxation on the results of rock climbing athlete (4.9 $>$ 3).

DISCUSSION

The PETTTLEP Imagery training model and imagery relaxation have a significant influence on the results of rock climbing together. However, the PETTTLEP imagery exercise model has a higher and more significant influence than the relaxation relaxation model on the results of athlete's rock climbing. This is consistent with the results of relevant previous studies such as previous studies of PETTTLEP Imagery exercises that have been proven to improve performance in

golf (Smith et al. 2008), netball (Wakefield & Smith, 2009), muscle strength (Wright and Smith, 2009) and volleyball (Afrauzeh et al. 2013).

In the process of imagery training an athlete will put each movement in accordance with the limbs working in his mind by imagining, so that the nerves that move the limbs will get used to a technique that is being learned in his mind. Then Imagery was developed by Holmes and Collins (2001) and a new theory emerged based on theory and research namely the PETTLEP imagery model. This model emerged based on the principle of functional equivalence where imagination in imagery must be as similar as possible to the actual situation, PETTLEP is a combination of components of: Physical, Environment, Timing, Task, Learning, Emotion, and Perspective.

Physical requires imagery to be a physical activity such as sports (Holmes & Collins, 2001; Wakefield & Smith 2012). Bringing up the kinesthetic sensation when imagery, besides that it is also recommended to wear clothes that are usually worn when doing the activity or a match and use objects that have something to do with the movement being imagined.

Environment refers to where the imagery is performed (Holmes & Collins, 2001; Wakefield & Smith 2012). Imagery place must be made as closely as possible to the place where the sport is carried out. Video, audio and photos can be used as a tool to help imagine a place.

Task is related to a specific task and is appropriate to the athlete's skill level, especially regarding focus and concentration (Holmes & Collins, 2001; Wakefield & Smith 2012). For example, advanced tennis athletes focus on hip rotation while beginner tennis athletes focus on wearing the ball and racket head.

Timing is related to the time of completion of the motion task (Holmes & Collins, 2001; Wakefield & Smith 2012). To get the equality of imagery and motion functions, then the speed of movement

when imagining must be the same as the original movement (real time).

Learning relates to the adaptation of imagery content to the stages of learning (Holmes & Collins, 2001; Wakefield & Smith 2012). The athlete's skill which increases from week to week is considered by this concept. The imagery script in PETTLEP is changed every week to match the athlete's skill level.

Emotion. In fact sports competition is a physical activity that involves emotions (Holmes & Collins, 2001; Wakefield & Smith 2012). For this reason imagery must bring up the same emotions as the actual sports situation. For example sports targets or bring up a feeling of tension when competing.

Perspectives in PETTLEP use an internal perspective (Holmes & Collins, 2001). The internal point of view is imagining motion from our own eyes, while the external point of view is illustrated by the athlete imagining seeing himself doing sports. External viewpoints such as athletes see a video of themselves exercising.

The application of PETTLEP Imagery exercises in this study has given positive results on performance so that athletes can improve performance in sports activities. In this PETTLEP Imagery exercise the athlete is invited to visualize the situation of the match that will be undertaken. In detail, athletes must describe the entire match, starting from the field situation, the audience, opponents and all kinds involved in the match. The procedure in applying PETTLEP imagery in this study using a guide or script made by researchers as guidance material for athletes doing imagery is read by researchers or trainers and assisted by videos / pictures to provide a more detailed description of athletes about the movements of technical techniques used. will be imagined and done by them. In addition, the results of this study are also in accordance with previous studies which concluded that PETTLEP imagery training

is better than imagery relaxation in improving sports performance (Afrauzeh, et al 2013).

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of research and discussion, the researcher can draw the following conclusions: (1) PETTTLEP Imagery exercises and imagery relaxation significantly influence the results of athletes rock climbing in FPTI Pandeglang Regency. (2) There is a significant difference between the PETTTLEP Imagery training and the relaxation of the imagery of the results of athlete rock climbing in FPTI Pandeglang Regency.

Based on the results of research and conclusions that have been presented, the authors submit recommendations in the hope that they will benefit all interested parties. The recommendations that the authors put forth are, as follows: For rock climbing trainers it is recommended to apply the PETTTLEP Imagery training model in the training process to improve mental skills which is one aspect that can affect athlete performance, because it gives an impact on improving the average results of climbing athletes. Now trainers must realize that training programs should not only focus on physical abilities, but should also apply mental skills training to support the improvement of athlete performance, mental skills training through the PETTTLEP imagery model and strategies to increase athlete motivation are expected to be applied to the process or training program in order to help athletes in their efforts to improve their performance, and for further research, it is recommended that they be able to provide new scientific studies, especially researching other variables that can be developed through training skills. enthal PETTTLEP imagery more specifically so that it can enrich knowledge and theoretical studies of the PETTTLEP imagery model.

REFERENCES

- Afrauzeh, dkk. (2013). *Effect of PETTTLEP Imagery Training of New Skills in Novice Volleyball Players*. *Life Science Journal*, 10 (1), hlm. 231-238.
- Anuar, N., Williams, S. E., & Cumming, J. (2016). Comparing PETTTLEP imagery against observation imagery on vividness and ease of movement imagery. *International Journal of Sport and Exercise Psychology*, (June), 1–14. <https://doi.org/10.1080/1612197X.2016.1177104>
- Barghi, dkk. (2012). *The Effect of an Ecological Imagery Program on Soccer Performance of Elite Players*. *Asian Journal Sport of Medicine*, 3 (2), hlm. 81-89
- Callow, dkk. (2013). *Performance Improvement from Imagery : Evidence that Internal Visual Imagery is Superior to External Visual Imagery for Slalom Performance*.
- Farahat, dkk. (2004). *Effect of Visual and Kinesthetic Imagery on the Learning of a Patterned Movement*. *International J. Sport Psychol*, 2004 (35), hlm. 119-132
- FPTI (2013). *Pedoman Peraturan Panjat Tebing Buatan*
- Gregg, M., & Hall, C. (2006). Measurement of motivational imagery abilities in sport. *Journal of Sports Sciences*, 24(9), 961–971. <https://doi.org/10.1080/02640410500386167>
- Hamrouni, dkk. (2015). *The Effect of Mental Imagery and Cardiac Coherence on Mental Skills of Tunisian Karate Players at School Age*. *Scientific Reseach Publishing*, 2015 (5), hlm. 107-115
- Holmes, P. S., & Collins, D. J. (2001). The PETTTLEP approach to motor imagery: A functional equivalence model for sport psychologists.

- Journal of Applied Sport Psychology*, 13(1), 60-83.
- Lori A. Ansbach (1989). *The Effect of Mental Imagery on Free Throw*.
- Morrison (2007). *Rock Climbing is Both a Physical and Psychologically Demanding Aesthetic Sport*.
- Mousavi (2011). *The Effect of Mental Imagery upon the Reduction of Athletes' Anxiety during Sport Performance*".
- Simonsmeier, B. A., & Buecker, S. (2017). Interrelations of Imagery Use, Imagery Ability, and Performance in Young Athletes. *Journal of Applied Sport Psychology*, 29(1), 32–43. <https://doi.org/10.1080/10413200.2016.1187686>
- Smith, D., Wright, C. J., & Cantwell, C. (2008). *Beating the bunker: The effect of PETTLEP imagery on golf bunker shot performance*. *Research Quarterly for Exercise and Sport*, 79(3), 385-391.
- Smith, D., Wright, C., Allsopp, A., & Westhead, H. (2007). It's All in the Mind: PETTLEP-Based Imagery and Sports Performance. *Journal of Applied Sport Psychology*, 19(1), 80–92. <https://doi.org/10.1080/10413200600944132>
- Tracey J. Devonport. (2006). *Perceptions of the Contribution of Psychology to Success in Elite Kickboxing*.
- Wakefield, C. J., & Smith, D. (2009). *Impact of differing frequencies of PETTLEP imagery on netball shooting performance*. *Journal of Imagery Research in Sport and Physical Activity*, 4(1).
- Weinberg & Gould (2011). *Foundation of Sport and Exercise Psychology 5th edition*. USA : Human Kinetics
- Wright, C. J., & Smith, D. (2009). *The effect of PETTLEP imagery on strength performance*. *International Journal of Sport and Exercise Psychology*, 7(1),18-31.