

The Effect of Imagery Training on Increasing the Confidence of Hockey Athletes

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ABSTRACT

This study aims to determine the effect of imagery training on increasing the confidence of hockey athletes. The research subjects consisted of 18 athletes who were members of a hockey academy in Bandung City. The research design used was one group pretest-posttest, where the subjects were given an initial test to measure the level of self-confidence before being given treatment in the form of imagery training. The imagery training program lasted for 8 sessions, with a duration of 50 minutes per session. After the program was completed, a final test was conducted to measure the increase in self-confidence using a questionnaire that had been tested for validity. The results of the analysis with paired t-test through SPSS 26 showed a significant increase in the level of self-confidence of athletes after undergoing imagery training. This is evidenced by all charts having increased after being given imagery training with an average difference of 7%. This study concludes that imagery training is recommended to be applied in the world of sports because this exercise can help athletes perform optimally when athletes have confidence.

Keywords: Imagery; Confidence; Athletes Hockey

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INTRODUCTION

Self-confidence for a hockey athlete is very important because it is the main component needed in a match. Without self-confidence, athletes tend not to be able to perform at their best when competing. Athletes with a high level of self-confidence have a greater chance of achieving better achievements (Wijaya, 2018). Athletes who have optimal self-confidence are also better able to face the challenges that arise in the field. With strong self-confidence, an athlete can overcome obstacles better, so they can perform optimally in competition (Fadare et al., 2022). This emphasizes the importance of self-confidence for hockey athletes to achieve peak performance (Sari et al., 2015).

Underperforming athletes often experience problems such as losing concentration or tensing up when under pressure (Mylsidayu, 2014). Mental problems such as excessive anxiety, loss of motivation, and low self-confidence can also negatively affect the game (Purnamasari & Novian, 2021). Therefore, self-confidence



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is a very important factor because it can automatically motivate athletes to perform at their best. Other research also states that self-confidence is the key to success for athletes at all levels (Hwang et al., 2017). Self-confidence can be the differentiating factor between success and failure (Chaouali et al., 2017). Therefore, increasing self-confidence is very important to avoid failure and achieve achievement.

Lack of self-confidence is often one of the factors that cause athletes to perform less satisfactorily (Setyawati, 2014). Athletes with weak psychology tend to feel doubtful and unsure of their abilities, especially when competing. This is often caused by a lack of mental training that supports the improvement of self-confidence. Many coaches only focus on improving technical skills without paying attention to the mental aspect. This often happens to young athletes who actually need confidence development (Bompa & Carrera, 2015). With good confidence development, young athletes can strengthen mentally and face challenges with more confidence (Vaeley et al., 2017).

Imagery training is one of the effective methods to increase athletes' confidence (Komarudin, 2016). It involves visualization or mental rehearsal in which athletes imagine themselves performing a movement or situation encountered in a game. A hockey athlete, for example, can use imagination to prepare by picturing shooting or passing the ball on the field. This exercise helps to create a positive mental picture, which in turn boosts the athlete's confidence. Research has also shown that imagery is effective in improving athlete performance through strengthening self-efficacy (Herrera-Velásquez, D. A., & Gómez Maquet, 2020; Marshall. & Gisbon., 2017). Imagery plays an important role in mental readiness before competition. Based on Yalcin & Ramazanoglu, (2020) research, athletes' confidence levels increase along with the intensity of imagery training. This research shows that mental imagery training can replace negative thoughts with positive visualizations that are important for increasing athlete confidence (Williams & Cumming, 2016). Although this study focused more on gymnastics, the results are relevant to other sports such as hockey. In addition, imagery skills are also considered important in regulating and controlling athletes' confidence in various situations (Williams & Cumming, 2016). Imagery has been shown to help athletes improve performance, both from a technical and mental aspect. Consistent use of imagery can have a significant impact on athletes' confidence and performance.

Facts in the field also support the importance of mental training in overcoming self-confidence problems. Based on an interview with a hockey athlete, he admitted that he often felt hesitant and lacked confidence when competing, even though during training these feelings did not appear. This shows that confidence is an important factor that affects an athlete's performance when competing. Thus, mental training such as imagery is the right solution to help athletes increase their confidence. Imagery can help athletes in regulating concentration, attention, and increasing focus on techniques such as passing and shooting. Previous research also states that imagery is an effective tool to hone athletes' mental readiness in facing matches (Komarudin, 2016).

LITERATURE REVIEW

In this component, you must introduce theories or concepts relevant to the research topic. You should explain how these theories relate to your research problem and how previous research has used or extended them. In this component, you must introduce

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Confidence

Self-confidence is an individual's view and attitude towards their abilities, which involves accepting themselves in all circumstances, both positive and negative. It is formed and learned through the process of learning with the aim of achieving personal happiness. It is a personality trait and a crucial element of a person that can facilitate their path in life. It is mentioned that a lack of self-confidence can have a negative impact on one's appearance. Self-confidence is closely related to the philosophy of self-actualization (self-fulfilling prophecy) and self-belief (self-efficacy). In line with previous research which revealed that athletes who have sufficient self-confidence believe that they can perform as expected (Lochbaum et al., 2022). Self-confidence in an athlete is defined as a belief in oneself, this can encourage individuals to determine their self-image and see themselves as a whole. Therefore, the level of self-confidence is influenced by internal factors including indicators such as emotional control, goals, competitive experience, rigorous training, self-esteem, and spiritual beliefs (Permana et al., 2022). Athletes who have faith in themselves can be capable and can achieve success (Fatmawati et al., 2022).

Self-confidence or a certain level of confidence in one's ability to succeed in a sport is a sign that an athlete has a good competitive mindset. What essentially determines an athlete's self-confidence refers to his mental state, which is influenced by his cognitive level. This is because the physiology of the body responds to brain instructions to dare or not make decisions (Purnomo et al., 2020). Therefore, to achieve peak performance, athletes must have self-confidence, because self-confidence is closely related to improving athlete performance. To overcome these problems athletes must have self-confidence.

Imagery

Imagery is a method or way of practicing mentally that every athlete must be able to do. Athletes are able to recreate motion experiences in their brains with imagery training, so athletes will display better motion patterns than before (Satrio Anggoro Putra Wibowo & Nur Indri Rahayu, 2016). This helps to recall information and experiences stored in memory and shape them into meaningful movement pattern images. Meaningful movement patterns are formed in the process by recalling information or experiences stored in memory and forming them into images. The experience is an important product of memory that is remembered and reshaped based on previous events.

Imagery is one of the techniques or methods in training mental skills that athletes should master. Athletes can improve concentration and maximize performance with imagery training (Kristina et al., 2022). Through imagery training, it has been shown to benefit athletes in reproducing movement experiences in their brain. This allows the athlete to effectively perform the movement pattern. This process occurs through the use of self-imagery and visualization of movement in the mind.

The Psychological Demands of Hockey Athletes

Hockey sport has experienced a lot of progress and rapid change. These advances and developments can be seen in the organization of championships at home and abroad. Domestically, hockey matches are divided into two categories, namely indoor hockey and outdoor hockey (Firdaus et al., 2021.). Indoor hockey is hockey whose way of playing is taken from field hockey (outdoor hockey) and indoor hockey was first developed in 1950 in Germany which is played by 5 players and 1 goalkeeper (Saleh & Rahman, 2020). Like other sports, hockey also requires players to master basic techniques to the maximum, so all hockey players must work individually or in groups to perfect mastery of basic techniques. It is very important to challenge and do things effectively and efficiently to achieve certain goals.

Efforts to achieve athlete achievement are often faced with various challenges such as feelings or responses felt by athletes. The response to demands that come from the environment and oneself is related to the athlete's performance when competing. Hockey matches have a fast style of play, where you pass the ball as quickly as possible, and run towards the opponent's goal as quickly as possible, and try to put the ball into the opponent's goal. The more adept a player is at controlling the ball, the easier it will be to escape from opposing players and the better his team's game. The hockey game requires a lot of energy, so athletes are required to have a good level of physical and mental condition for maximum achievement. This is in line with previous research which reveals that the game is played in teams by competing, the final result in the match depends on the whole team (Nia & Ali Besharat, 2010).

Psychological phenomena arise when athletes experience certain psychological behaviors, this phenomenon can help coaches and sports psychologists in understanding and recognizing the psychological characteristics of athletes. In line with previous research that psychological characteristics have an influence on better sports behavior (Chang et al., 2020).

Psychological aspects are components that must be considered for conditions such as self-confidence, motivation, and anxiety. This is very influential on the athlete's best performance. In line with previous research that positive thinking, emotions, motivation, self-confidence, concentration, and anxiety are aspects of psychology that play a role in the world of sports (Rustandi, 2019). Self-confidence is one of the determining aspects in the good and bad performance of athletes when competing and increasing athlete confidence will improve strategy and performance in the game.

RESEARCH METHODOLOGY

This study used an experimental method with a one group pretest-posttest design, where a group of experimental subjects were given an initial test to measure the initial ability of each sample. After obtaining data from the initial test, the sample was given treatment in the form of imagery exercises. The final test was conducted to determine the effect of the treatment that had been given (Fraenkel et al., 2012). The subjects in this study consisted of 18 athletes of the Bandung City Hockey Academy. The imagery training program was conducted for 8 meetings, with each training session lasting 50 minutes. After the training program was completed, athletes' self-confidence was measured using a self-confidence questionnaire (Nursaba et al., 2024), which has been tested for validity, with a validity value of 0.841. This questionnaire consisted of 13 items using a Likert scale, where participants were given answer options ranging

from 1 = "Strongly Disagree" (STS), 2 = "Disagree" (TS), 3 = "Agree" (S), to 4 = "Strongly Agree" (SS). The analysis technique used is a paired test with SPSS 26, which aims to determine the effect of imagery training on increasing the confidence of hockey athletes.

RESULTS

The data obtained from the initial and final test results are raw data that must be processed using SPSS. The test results can be seen in table 1.

Table 1. Pretest and Posttest Results of Self-Confidence of Hockey Athletes

No	Name	Pretest	Posttest
1	A1	33	39
2	A2	37	41
3	A3	38	40
4	A4	41	43
5	A5	36	39
6	A6	32	36
7	A7	34	39
8	A8	38	41
9	A9	34	38
10	A10	33	36
11	A11	31	35
12	A12	35	38
13	A13	38	41
14	A14	38	42
15	A15	34	37
16	A16	40	43
17	A17	36	39
18	A18	26	35

Based on Table 1, the data collected through measurements were then processed and analyzed using a statistical approach. This data collection is still in the form of raw data which is then processed into standard data. Data analysis was carried out with the help of statistical software using SPSS series 29. The measurement results data can be seen in Table 2.

Table 2. Descriptive Statistics

	N	Mean	Std.Deviation	Minimum	Maximum	Sum
Pretest	18	35.22	3.59	26	41	634
Posttest	18	39.00	2.54	35	43	702

Based on Table 2 of the data obtained in conducting pretests and posttests. obtained an average value before being given treatment of 33.22 and after being given treatment the average value is 39.00 with a standard deviation before being given treatment is 3.590 and after being given treatment is 2,544. The minimum value before being given the treatment was 26 and after being given the treatment obtained a value of 35. Then the maximum value before being given the treatment was 41 and after being given the treatment obtained a value of 43. after doing descriptive data, continue

data processing to find hypotheses by starting the normality test and homogeneity test can be seen in table 3.

Table 3. Test of Normality

Test	Shapiro Wilk		
	Statistic	df	Sig
Pretest	0.952	18	0.454
Posttest	0.949	18	0.410

Based on Table 3, the significance value obtained in the pretest 0.454 and Posttest 0.410 > 0.05, then Ho is rejected. So it can be concluded that both data are normally distributed.

Table 4. Homogeneity Test

Levene Statistic	df1	df2	Sig	Conclusion
1.566	1	34	0.219	Homogeneou

Based on Table 4, the significance value is 0.219 > 0.05, then Ho is rejected. So it can be concluded that the data has the same group variance (homogeneous). After conducting the homogeneity test, the next hypothesis test using the Paired Sample t-Test test can be seen in table 5.

Table 5. Paired Sample t-Test Results

Mean	Std.Dev	t	df	N	Sig	Conclusion
-3.77	1.62	9.83	17	18	0.000	Ho rejected

Based on Table 5, the significance value is 0.000 < 0.05, so Ho is rejected. So it can be concluded that there is a significant effect of Imagery Training on Increasing Self-Confidence of Hockey Athletes.

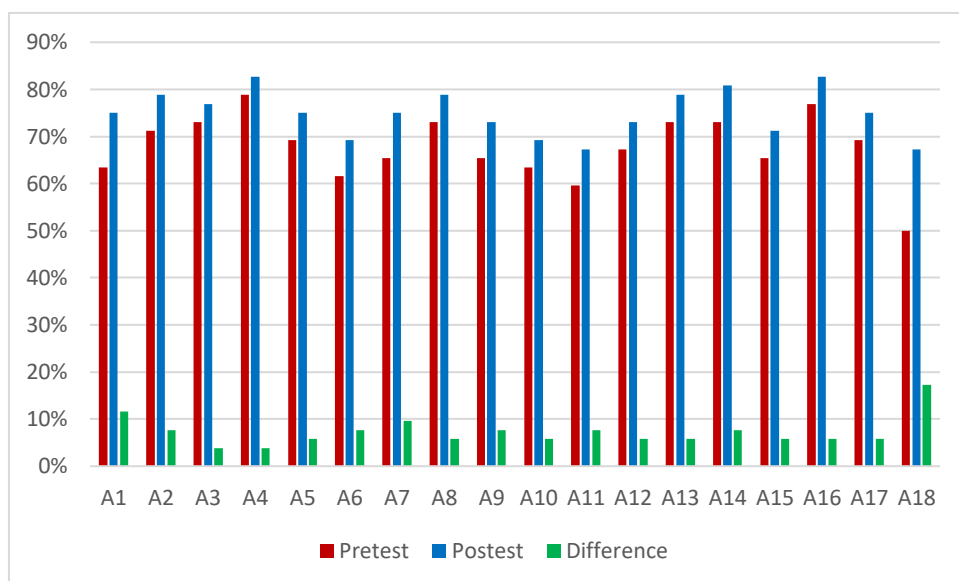


Figure 1. Percentage of Sample Self-Confidence at Pretest, Posttest, and Difference

Based on the graph above, the results of the pretest, posttest, and individual differences in athletes were obtained with an increase in the posttest, so it can be concluded that imagery training can affect the increase in self-confidence of hockey athletes.

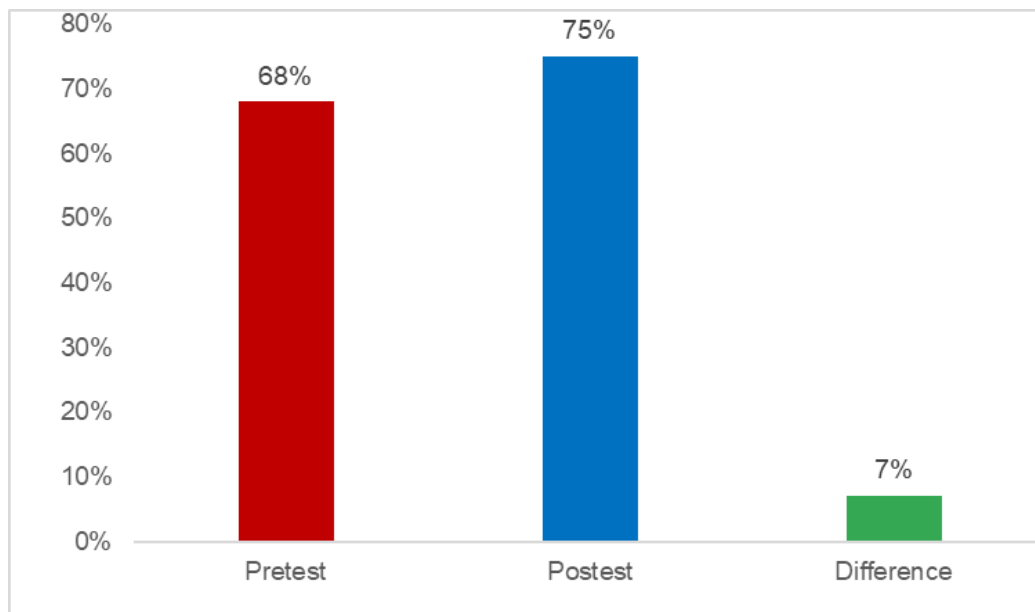


Figure 2. Percentage of Overall confidence at Pretest, Posttest, and Difference

Based on the graph above, the pretest-posttest results and the overall difference between athletes obtained a pretest score of 68%, then an increase in the posttest of 75% with an average difference of 7%, so it can be concluded that imagery training can have an effect on increasing the confidence of hockey athletes.

DISCUSSION

Imagery training has been shown to have a significant impact in increasing the confidence of hockey athletes. Imagery is a mental technique where athletes visualize match situations, strategies, and success in detail (Gould et al., 2014). The results of this study showed that after undergoing an imagery training program for 8 sessions, athletes experienced a significant increase in self-confidence. Imagery training done regularly can have a significant impact on increasing athlete confidence (Martin et al., 1999). Visualization that is done consistently helps athletes feel more psychologically prepared in the face of competition (Rony Syaifullah et al., 2024). Thus, imagery becomes one of the important tools in improving athletes' mental performance (Sin, 2016).

Self-confidence is a key element in sports performance, especially in team sports such as hockey. Through imagery training, athletes can project success on the field and create a positive image of their performance. More confident athletes tend to perform better (Stankov et al., 2015), as they are able to deal with pressure more calmly and focused. The decrease in anxiety that occurs due to imagery practice contributes to improved overall performance (Putri & Savitri, 2023). Those who routinely practiced imagery felt more familiar with the match scenario, thus reducing the sense of uncertainty. Ultimately, this improvement also has a positive impact on their ability to make decisions on the field.

Imagery training not only helps to cope with the pressure of competition, but also increases confidence in complex situations (Ramadhanti, 2022). Athletes who engage in this exercise are able to visualize strategies and responses to challenges more effectively. This helps them feel more confident in dealing with unexpected situations during matches (Aulia & Riyan., 2020). Imagery also gives athletes more control over their mental state, which is important for maintaining focus and motivation (Darisman et al., 2021). This is particularly relevant in sports such as hockey, where changes in situations occur quickly. Thus, imagery serves as a tool to improve mental preparedness in the face of pressure.

However, the effects of imagery training are not always the same for every athlete. Several factors such as age, playing experience, and skill level can influence how imagery is received and applied (Gould et al., 2014). More experienced athletes tend to use this technique more easily as they already have a strong understanding of the tactics and dynamics of the match. In contrast, younger or less experienced athletes may need more time to master imagery (Caine et al., 2016; Vaeley et al., 2017). This factor shows the importance of adaptation and customization of imagery programs based on individual needs. Therefore, coaches should pay attention to these differences when implementing imagery in training programs.

In addition to the experience factor, the frequency and intensity of imagery practice also affect the results. Athletes who perform imagery routinely and structured get greater benefits compared to those who do it sporadically (Hendri Gunawan et al., 2023). Consistency in imagery training allows the brain to build stronger positive mindsets (Holmes et al., 2016). The more often this exercise is done, the clearer the mental picture that is formed, thus providing a more significant impact on self-confidence. The duration of the exercise also plays an important role in the effectiveness of imagery. Therefore, coaches need to design a systematic imagery training program for optimal effects.

In conclusion, imagery training is an effective technique to increase the confidence of hockey athletes. The application of imagery in a structured manner, with attention to the individual needs of the athlete, can provide positive results in the long term (Simonsmeier et al., 2021). A consistent imagery program helps reduce anxiety, increase positive visualization, and provide better mental readiness. The results of this study also support previous findings showing that imagery can improve the psychological aspects and performance of athletes. Therefore, it is important for coaches to integrate imagery exercises into mental training programs on a regular basis. Thus, athletes will be more mentally prepared to face competition challenges with confidence.

CONCLUSION

Based on the results of the research that has been conducted, it can be concluded that imagery training has a positive effect on increasing the confidence of hockey athletes. After following a structured imagery training program, there was a significant increase in athletes' confidence, especially in their ability to imagine match situations, control emotions, and visualize optimal performance.

Imagery training was shown to help athletes feel more mentally prepared and increase their confidence in facing challenges on the field. These results suggest that imagery techniques can be an important part of a psychological training program that

supports the development of athletes' mental aspects and overall performance. Thus, coaches and support teams are advised to integrate imagery training into routine training programs to improve athletes' readiness and confidence in competition.

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CONFLICT OF INTEREST

The authors of this paper emphasize that they have no competing interests with any entity.

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