



## EFFECTIVENESS OF SIX WEEKS MENTAL IMAGERY INTERVENTION ON CONVENTIONAL "V" GRIP USED BY BATSMAN

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### ABSTRACT

The grip is one of the basic batting skills in cricket. It is referred to how a batsman holds the bat. It is the most essential part of batting skills because a comfortable and correct grip gives a batsman chance to execute a range of shots with flair. So the present study aimed to evaluate the efficacy of six weeks mental imagery intervention on batting skills namely conventional V grip among U-19 male cricket players. To conduct the study 50 male cricket players enrolled in various cricket academies in Bilaspur were selected as sample. The age range of the subjects was 17 to 19 years. The other criterion for selection was participation as a specialist batsman in a district level tournament. The convenience sampling method was used for the selection of subject. The grip used by the batsman was assessed by the batting coach. A six weeks mental imagery intervention program prepared by the researcher in consultation with a research supervisor and experts in the field of sports psychology was used in this study. The mental imagery intervention program was based on PETTLEP model suggested by Holmes & Collins (2001). It includes P as physical, E as Environment, T as Task, T as Timing, L as Learning, E as Emotions and P as perspective respectively. The mental imagery program was of 60 minutes duration and of 05 days a week. The data on the correctness of grip used by a batsman was collected thrice i.e. before the start of mental imagery intervention, after three weeks from the start of the program and after six weeks after commencement of the intervention program. A significant increase in technique to hold to bat was observed during six weeks mental imagery intervention. It was concluded that mental imagery is a useful technique to improve the technique of a batsman to hold the bat i.e. grip on the bat.

**Keywords :** Mental imager, Conventional "V" grip, batsman

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## 1. INTRODUCTION

The grip is one of the basic and essential skills for a batsman to excel. The grip on a bat is important as it helps a batsman to hit a delivery with timing and precision. How a batsman holds the bat is referred to as grip. To become a good batsman, the grip is one of the factors that is essential. To play a wide range of shots, a comfortable and correct grip is required. There are two types of grips used by a batsman - 1. "V" shaped and 2. "O" shaped grip respectively. The "V" shaped grip is more commonly used. In a V-shaped grip both the hands are close to each other. The left hand is at the top for the right-hander with the bottom hand holding the bat a little bit loose. The back of the palm in this grip is facing towards the wicketkeeper. In this way, both the palms make V shape and the centre line runs through the back of the bat. The V-shaped grip is used by the majority of the batsman. Another aspect of grip on the handle of the bat is the positioning of hands. If too much space is left above the left hand, it creates problems in executing certain shots or maybe the cause of wrist injury in a longer period. The major benefit of this grip is that the batsman can play shots all around the park with ease. So a solid technique is built on sound grip on the bat handle. Keeping the importance of grip on bat handle on batsman's performance various techniques are used to correct the flaws in it. One such technique that can be used to improve correctly using "V" shaped grip may be the mental imagery technique. **Morris, Spittle and Watt (2005)** defined mental imagery as one's capability to form controllable images and retaining them for sufficient time to achieve the required imagery rehearsal. In this regard sportsperson with better imagery ability benefit more from visualisation technique as compared to those with poorer imagery ability. A study conducted by **Robin et al. (2007)** also reported that following imagery intervention tennis serve return accuracy of players with better imagery ability improved more significantly as compared to players with inferior imagery ability. Like any other sport such as golf, soccer, basketball etc. role of mental skills in the sports performance of cricket players has been scientifically documented. It is believed that elite cricketers often use visualization technique or mental image to rehearse the plan or technique that is to be executed during an actual match situation. In this way, a bowler visualizes bowling a yorker or bouncer or a slower ball. Similarly, batting also starts in the mind. Batsman visualizes a cover drive or a defensive shot in their mind as if they are executing it in a match. Stance, the grip of the bat, back lift, initiation, downswing and follow-through are an integral part of batting skills (**Stretch, Bartlett, & Davids, 2000**) In this way they prepare themselves for actual match situation. Hence visualization is an integral part of cricket mental training. The role of mental skills in terms of visualization has also been advocated by eminent players like Sachin Tendulkar after the World Cup triumph. As far as literature on mental imagery and sports performance, researchers such as **Roure et al. (1998)**, **TheIwell and Maynard (2003)**, **Seif-Barghi et al. (2012)**, **Dana and Gozalzadeh (2017)** have documented the benefits of mental imagery training on sports performance. Hence the researcher decided to assess the efficacy of six weeks mental imagery intervention on conventional "V" grip of batsman playing in a U-19 cricket tournament.

The objective of the present study is to assess the impact of six weeks mental imagery program on the conventional "V" grip used by the batsman. It was also hypothesized that the six weeks mental imagery intervention for batsman will significantly improve their technique to grip on bat handle in the form of conventional V grip.

## 2. METHODOLOGY

The following methodological steps were taken to conduct the present study.

### 2.1 Sample

To conduct the study 50 male cricket players enrolled in various cricket academies in Bilaspur were selected as sample. The age range of the subjects was 17 to 19 years. The other criterion for selection was participation as a specialist batsman in a district level tournament. The convenience sampling method will be used for the selection of subject.

### 2.2 Tools

**Mental Imagery Intervention:** Six weeks mental imagery intervention program was prepared by the researcher in consultation with the research supervisor and experts in the field of sports psychology. The mental imagery intervention program was conducted based on PETTLEP model suggested by **Holmes & Collins (2001)**. It includes P as physical, E as Environment, T as Task, T as Timing, L as Learning, E as Emotions and P as perspective respectively. The mental imagery program was of 60 minutes duration and of 05 days a week. Participant was asked to come in full gear for imagery session with their pads, helmet and gloves on and bat in hands (physical and environment). Participants were asked to imagine the bat swing exactly as it naturally occurs in offensive or defensive technique (task). They were asked to write down the comfortable grip on the bat handle. The participants were instructed to image their bat swing and ball trajectory using the correct conventional V grip.

The grip on bat handle and wrist position: The correctness of grip on bat handle and wrist position is assessed by a batting coach of the academy. The coach assigns the marks on a scale ranging from 1 to 8 for ideal grip on bat handle.

### 2.3 Procedure

First of all, 50 district level U-19 male cricket players playing as a specialist batsman were identified through the convenience sampling method. The selected batsman were subjected to mental imagery intervention while continuing their routine physical and skill-related sessions. The correctness of the conventional "V" grip of selected male cricket players was assessed and rated on a scale of 1-8 points by the batting coach before the commencement of the study period. The selected subjects then took part in six weeks mental imagery intervention program. The correctness of conventional "V" grip of selected male cricket players (batsman) was again reassessed after 03 weeks and 06 weeks respectively. Repeated measures ANOVA was used for data analysis and the results are shown in table 1, and 2.

## 3. RESULTS

**TABLE 1**  
**DESCRIPTIVE STATISTICS OF MENTAL IMAGERY INTERVENTION PROGERAM**  
**FOR CORRECTNESS OF CONVENTIONAL "V" GRIP**  
**OF MALE BATSMAN IN CRICKET**

Conditions	N	Conventional "V" Grip	
		Mean	S.D.
Before Study Period	50	3.92	1.45
After 03 Weeks	50	4.18	1.78
After 06 Weeks	50	5.38	1.61

Table 1 indicates the mean rating on the conventional "V" grip used by the batsman. Before the commencement of the study, the mean rating score was 3.92. After 03 weeks interval, the mean judges rating on the conventional "V" grip used by the batsman was 4.18 and after 06 weeks it was 5.38. The F ratio of 19.46 was found to be statistically significant at .01 level.

**TABLE 1(a)**  
**REPEATED MEASURES ANOVA ON IMAGERY OF BATAMAN OF CRICKET IN THEIR PRE-TEST AND POST-TEST AFTER 03 WEEKS AND 06 WEEKS**

Source	df	Sum of Squares	Mean Square	F	Sig.
Before Study Period	1.71	60.653	33.305	19.16	.01
After 03 Weeks	83.96	152.68	1.818		

The obtained results are shown in table 1 and 1(a) were also confirmed by Least Significant Difference Test presented in table no. 2.

**TABLE 2**  
**LEAST SIGNIFICANT DIFFERENCE TEST BETWEEN ORDERED PAIRED MEANS ON IMAGERY INTERVENTION PROGRAM OF BATSMAN IN THEIR PRE-TEST AND POST-TEST AFTER 03 WEEKS AND 06 WEEKS TRAINING OF V-GRIP IN CRICKET**

Before Study Period	After 03 Weeks	After 06 Weeks	MD
3.92	4.18		0.26
3.92	-	5.38	1.46*
-	4.18	5.38	1.20*

\* Significant at .05 level

Statistical figures presented in table 2 draws the following inferences:

1. The technique to hold the bat with conventional "V" grip was found to be enhanced in a group of batsman after three weeks of mental imagery intervention (M=4.18) as compared to the start of the program (M=3.92) but the mean difference of 0.26 was statistically non-significant.
- 2.. The technique to hold the bat with conventional "V" grip was found to be enhanced after six weeks of mental imagery intervention (M=5.38) as compared to the start of the program (M=3.92) with a mean difference of 1.460 being statistically significant at .05 level.
3. The technique to hold the bat with a conventional "V" grip was found to be enhanced after six weeks of mental imagery intervention (M=5.38) as compared to what it was after three weeks of mental imagery intervention program (M=4.18) with a mean difference of 1.20 being statistically significant at .05 level.

#### 4. DISCUSSION

Results of the present study revealed a significant impact of six weeks mental imagery intervention on conventional "V" grip and wrist position on the bat handle. **Morris, Spittle and Watt (2005)** defined mental imagery as one's capability to form controllable images and retaining them for sufficient time to achieve the required imagery rehearsal. In this regard sportsperson with better imagery ability benefit more from visualisation technique as compared to those with poorer imagery ability. **TheIwell and Maynard (2003)** assessed the effect of mental skills program on a repeatable good performance in cricketers. They advocated that in this multidimensional conceptualization of sports performance, psychological or mental skills become a common essential factor for sports excellence. The results are also consistent PETTLEP model suggested by **Holmes & Collins (2001)**.

## 5. CONCLUSION

Based on results, it may be concluded that batsman may correct flaws in their conventional "V" grip and wrist position with proper use of mental imagery intervention even of short duration. Hence the efficacy of mental imagery training program for enhancing the grip and wrist position of the batsman is supported in this study.

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