

## Effect of Specific Drills Training Programme on Agility among Nagaland University Hockey Players

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**Abstract:** The purpose of the study was to find out the effect of specific drills training on agility among Nagaland University hockey players. To achieve this purpose of the study, thirty men hockey players were selected as subjects who were from the various schools, Nagaland University, Lumami, Nagaland. The selected subjects were aged between 19 to 24 years. They were divided into two equal groups of fifteen each, Group I underwent specific drills training and Group II acted as control that did not participate in any special training apart from their regular sports and games practices. The subjects were tested on selected criterion variables such as agility prior to any immediately after the training period. The selected criterion variable such as agility was measuring by Hexagon test. The analysis of covariance (ANCOVA) was used to find out the significant differences if any, between the experimental group and control group on selected criterion variable. The 0.05 level of confidence was fixed to test the significance, which was considered as an appropriate. The result of the present study has revealed that there was a significant difference among the experimental and control group on agility.

**Keywords:** specific training, drills, agility, hockey.

### Introduction

The primary objective of sports training is to stress various bodily systems to bring about positive adaptation in order to enhance sporting performance. To achieve this objective, coaches and athletes systematically apply a number of training principles including overload, specificity and progression, organized through what is commonly termed periodization. The application of these principles involves the manipulation of various programme design variables including choice of exercise, order of training activities/exercises, training intensity (load and repetition), rest periods between sets and activities/exercises and training frequency and volume in order to provide periods of stimulus and recovery, with the successful balance of these factors resulting in positive adaptation [1]. Sport specific training is simply fitness and performance training designed specifically for athletic performance enhancement. Training programs for athletic performance enhancement could include such areas as strength, speed, power, endurance, flexibility, mobility, agility, mental preparedness (including goal setting), sleep, recovery/regeneration techniques and

strategies, nutrition, rehabilitation, pre-habilitation, and injury risk reduction. A general program should include all of these components and a more specific program may only include a few, depending upon the athlete's specific needs (based on strengths, weaknesses and/or imbalances) and the demands of the sport they participate in [2]. While there may be some sense of specificity to a program designed for an athlete of a specific sport, the truth is that there is a limit to the amount of application/carryover of a sports performance exercise to a sports skill. The most sports specific training that can be done is the sport itself. Sports specific skills practiced for the sport are as specific as one can get. Take Ice Hockey, for example: there are no exercises that can be performed in the weight room that are more specific to hockey than skating on the ice. The same is true for shooting the puck. However, while there are sports specific skills necessary for each sport, there are also physical skills necessary for each sport. Sports preparation is necessary for the sport specific skills (shooting a basketball, pitching a baseball, etc.) and physical preparation is needed for specific

performance enhancement such as foot speed, strength, power, etc [3].

### Objectives of the study

The main objective of the study was to assess the effect of specific drills training on agility which would help to enhance physical fitness of hockey players. The present study was designed to obtain the data on the men players from various schools of Nagaland University, Lumami, Nagaland.

Statement of the problem

The purpose of the study was to determine the effect of specific drills training programme on agility among Nagaland University hockey players.

### Delimitations

1. The study was delimited to Nagaland University, Lumami, Nagaland.
2. The study was delimited to 30 hockey players, their age was 19 to 24 years.
3. The study was restricted to the dependent variable is agility and independent variables are specific drills training.

### Significance of the Study

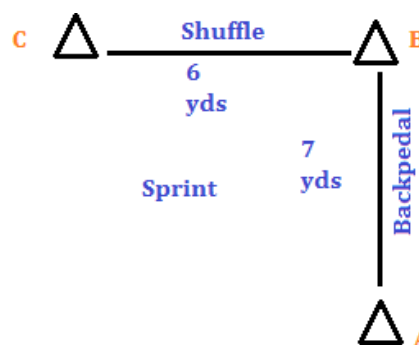
1. The findings of the study may be helpful for university hockey players to apply specific drills training which will help in better health and fitness.
2. The findings of the study would be helpful for the trainers to know the role of agility influence their physical fitness.
3. The results of the study may be helpful to fitness trainers, coaches, physical educationist and exercise physiologists to design proper training protocol for other populations.

### Methodology

In the present study all the students studying in various schools, Nagaland University, Lumami, Nagaland were considered as population for the study. A representative sample of 30 hockey players in the age of 19-24 years was chosen as sample for the study. The selected participants were divided into two groups. Group I underwent specific drills training and group II act as control group. The experimental groups underwent eight weeks of training in their particular workout. For this study dependent variable is agility.

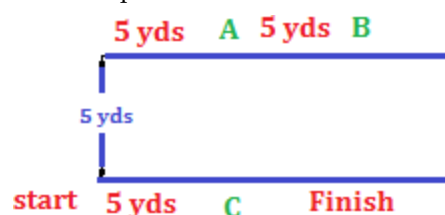
#### Drills – a) Triangle Drill

- Backpedal from cone A to cone B
- Shuffle from cone B to cone C
- Sprint from cone C through cone A
- Repeat repetitions in opposite direction



#### Cone wheel

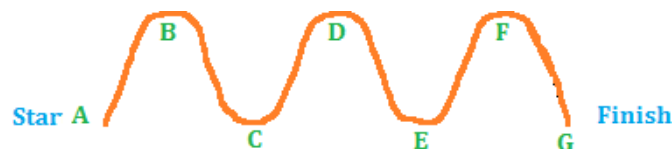
- Sprint starting point to cone A and wheel around to sprint to cone B
- Wheel around B and sprint to cone C
- Bend at hips and knees and touch cone C
- Then backpedal across finish line



#### Alpine drill

Cut around seven cones spaced 5 yards wide and 5 yards long

- Sprint
- Backpedal/ sprint
- Shuffle/ sprint



#### Test Administration – Hexagon test

##### Purpose

The purpose of this test is to measure the ability to move quickly while maintaining balance.

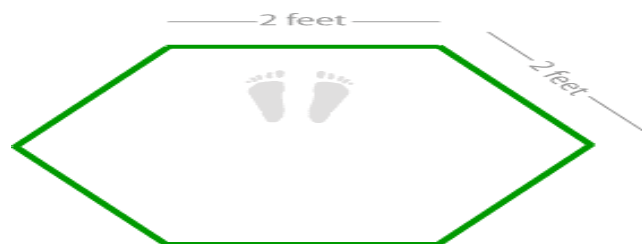
##### Equipments and Materials

Measuring tape, stop watch, paper and pencil were used.

##### Procedure

Using athletic tape, mark a hexagon (six sided shape) on the floor. The length of each side should be 24 inches (60.5 cm), and each angle should work out to be 120 degrees. The person to be tested starts with both feet together in the middle of the hexagon facing the front line. On the command 'go', they jump ahead across the line, then back over the same line into the middle of the hexagon. Then, continuing to face forward with feet together, jump over the next side and back into the hexagon. Continue this pattern for

three full revolutions. Perform the test both clockwise and anti-clockwise.



### Scoring

The athletes score is the time taken to complete three full revolutions. The best score from two trials is recorded. Comparison of the anti-clockwise and clockwise directions will show if any imbalances exist between left and right movement skills.

### Analysis of Data

The data obtained were analyzed by analysis of covariance (ANCOVA). Analysis of covariance was computed for any number of experimental groups, the obtained 'F' ratio compared with critical F value for significance [4].

### Results and DISCUSSION

The statistical analyses of agility due to specific drills training have been presented in Table I.

**Table 1** The statistical analysis of specific drill.

		<i>Specific drills Training Group</i>	<i>Control Group</i>	<i>F ratio</i>
<i>Pre Test</i>	<i>Mean</i>	<i>13.03</i>	<i>13.02</i>	<i>0.21</i>
	<i>S D</i>	<i>0.63</i>	<i>0.89</i>	
<i>Post Test</i>	<i>Mean</i>	<i>12.11</i>	<i>13.04</i>	<i>5.57*</i>
	<i>S D</i>	<i>0.94</i>	<i>0.92</i>	
<i>Ad Post Test</i>	<i>Mean</i>	<i>12.24</i>	<i>13.03</i>	<i>19.20*</i>

The table I shows that the pre-test means of specific drills training group and control group are  $13.03 \pm 0.63$  and  $13.02 \pm 0.89$  respectively. The obtained 'F' ratio of 0.21 for pre-test means of agility was not significant at .05 levels indicating that the two groups were no significant variation. The post-test means of specific drills training group and control group are  $12.11 \pm 0.94$  and  $13.04 \pm 0.92$  respectively. The obtained 'F' ratio of 5.57 for post-test means of agility was a significant at .05 levels indicating that the two groups were significant variation. The adjusted post-test means of specific drills training group and control group are 12.24 and 13.03 respectively. The obtained 'F' ratio of 19.20 for

adjusted post-test means of agility was significant at .05 level. The results of the study indicate that there is a significant difference among specific drills training group and control group on agility.

### Conclusion

The results of the study proved that there were significant differences between control group and specific drills training group. The eight weeks of experimental treatment significantly influence on agility in university hockey players. The above results are supported by Lockwood Kelly Brophay Patrick [5], Montgomery [6] and Selvapandian and Pushparajan [7].

### References

1. Brain Mc Farlane, *The Hockey Book* (The Mitchell Brothers) (Toronto: Key Porter Books, 2008)
2. Battinelli Thomas, (2007), *Physique, Fitness and Performance*, Fitchburg, Massachusetts: CRC Press - Taylor & Francis Group, PP. 3, 5 & 15
3. Dave Chambers, *The Hockey Drill Book* (U.S: Human Kinetics, 2005)
4. David H. Clarke and H. Harrison Clarke, *Advanced Statistics*, (New Jersey: Prentice Hall Inc., 1988).
5. L. Lockwood Kelly and Brophay Patrick, *The Effect of a Plyometrics Program Intervention on Skating Speed in Junior Hockey Players*, *The Sport Journal*, 7 (2004) 184-201.
6. D.L. Montgomery, *Physiology of Ice Hockey*, *Sports Medicine*, 5 (1988) 99-126.
7. D. Selvapandian and A. Pushparajan *Effect of Hockey Specific Training on Physical Fitness Variables of Male Inter Collegiate Hockey Players*, *International Journal of Innovative Research & Development*, 1 (2012) 270-273.