5.1 Summary

A lots of studies have been conducted which throw light on the method of selecting potent individuals in various discipline of sports on basis of factorial analysis, it is claimed that certain sports required predominantly such attribute of physical fitness as speed, strength, agility cardiovascular endurance, flexibility et. The research has proved that speed and agility are hereditary qualities, which depend upon the morphological structure of the muscle. Most investigators in the field of physical education and sports believe that athletes are born and made. Better standards in physical fitness and sports competition can not be established until and unless the teacher and coaches concerned with training and development of sports potentialities and limitation of the children under their care and the external facilities that can be procured from outside far the enforcement of heredity qualities. Hence,
racial and inheritance are very important factor which indicate the possibility of impossibility in an individual to become a good player and athlete.¹

A country like India having varied climates conditions, different food habits, and wide gaps in socioeconomics levels, therefore, identification of talented boys and girls in proper age group assumes more significance to prepare elite sports person. Further scientific scouting of talents at optimum age level and thereafter nurturing them systematically and physiologically gifted children in future medal hopes is very important to achieve the success in sports arena.

There is no dearth in the fact that India has the abundance of such these hidden talent but it is a job to find out such budding young talents and mould them up in such a way that they might become the pride of the Nation in coming years.

The identification of persons capable of high level performance is an obligatory function of society. This is true not for identifying future intellectuals, musicians, artists, and writers, but for sports persons as well. Sports, like other performance oriented activities, are a means by which we test the human limits of the human
potential. To achieve the highest level of sports performance requires a lifelong process. This project was undertaken to measures the sports talent of Himachal Pradesh as well as to make the norms region wise, so that the talent of Himachal Pradesh searched out accordingly in the early age.

Sports scientist Viz., Craty\textsuperscript{2}, Hare\textsuperscript{3}, and Sodhi\textsuperscript{4}, Dey SK and Derby\textsuperscript{5} and Paragaonkar G.V\textsuperscript{6} revealed that, the difference in motor performance stem from multifarious influences of varied factors interacting complex combinations. They also agreed that heredity factors along with climate. Culture and life-style can from a module for potential motor abilities.

In present study investigator, investigated the sports talent factor of Inner Himalayan and Lower hilly areas of Himachal Pradesh. Further the researcher also to prepared norms of different age group for sports talent factors of Inner Himalayan and Lower Hilly and compared it with the National norms; therefore the present study entitled, “A study of sports Talent identification factors of Inner Himalayan and Lower Hilly Area School boys of Himachal Pradesh”. Was undertaken with the following objectives
1. To Measure the sport talent of Inner Himalayan and Lower Hilly area Boys of Himachal Pradesh.

2. To compare the sports talent of inner Himalayan area boys with lower hilly area boys of Himachal Pradesh state.

3. To prepare the age wise norms for Inner Himalayan and Lower Hilly area boys.

4. To compare the age wise norms of both area boys with National norms for Indian children formulated by SAI.

On the basis of assumption made and Literature reviewed, the present investigator was formulated the following hypotheses.

**H1:** There is significant difference in the sports talent of inner Himalayan and lower hilly area’s boys.

**H2:** The inner Himalayan boys are more superior to the lower hilly area boys in motor abilities.
**H3:** There is no difference between the SAI norms and inner Himalayan and Lower Hilly boy’s norms of sports talent.

The study may have the following applications:

- The Percentile Norms of the study may be helpful to know the differences between Inner Himalayan and Lower Hilly area boys in relation to sports talent.

- Comparison of the H.P Inner Himalayan and Lower Hilly with Indian national Norms Helps the H.P Sports Authorities to prepare sports development plan and schemes.

- The result of the study may help to the sports scientist and coaches to assess, classify, understand and prepare the inner Himalayan and lower Hilly areas athletes according to their capabilities.

- This study may provide an opportunity and encouragement to sport talent in both inner
Himalayan and Lower Hilly area’s students of Himachal Pradesh.

- This study may helpful to the Physical educators to prepare the appropriate physical education program as well as to understand the sport potential of their pupils.

- The findings of this study may benefit to the area of sports talent in Indian sports specifically to select the talented sports persons. Even the boys can take the advantage of the result of this study in realizing their own level of sports talent. This may inspire them to improve their motor ability and, in turn, may enhance their performance so they can fit in to the SAI sports talent test battery.

The investigator employed a survey cum normative study under descriptive research to complete this investigation.
Three thousand one hundred sixty (n=3160) school going boys, age from 12 to 14 years, were selected for this study from Himachal Pradesh. 1580 from Inner Himalayan and the same from Lower Hilly area were selected. The subjects were selected on the basis of stratified random sampling technique\(^7\).

The motor qualities of all the subjects were assessed by using the battery of Sports Talent Test which was developed by the Sports Authority of India (SAI) This battery helps to test the motor qualities viz., Speed, explosive strength, strength of arms, agility, flexibility, strength of legs and hip, and endurance and anthropometric status (height and Weight) of the subjects

Following variables have measured by using standard tools:

- **Anthropometric Measurements:**
  
  a) **Height:**
  Was measured with the help of vertical scale fixed with the wall and measurement taken nearest centimeter.

  b) **Weight:**
  Body weight measured with the help of a digital weighing machine nearest 0.1 Kg.
• Motor ability Test:

a) **Speed** was tested by 30 M flying start and the performance was recorded nearest 1/100\(^{th}\) of a second.

b) **Explosive strength of the leg** was assessed using standing Broad jump test. The distance was recorded nearest 0.5 cm.

c) **Explosive strength of legs and extensibility of hip muscles** was assessed by using standing vertical jump test recorded in centimeters.

d) **Agility** was measured by using 6 x 10 M shuttle run test and the performance was recorded nearest 1/100\(^{th}\) of a second.

e) **Flexibility** measured by forward bend and reach test measured in cm.

f) **Explosive strength of the arms** was measured by medicine ball put test. Performance was recorded in cm.
g) **Cardiovascular Endurance** was assessed with the help of 800 M run test and performance was recorded nearest to \(1/100^{th}\) of a second.

Applying descriptive statistics the data have been processed primarily. Further, Test-retest reliability coefficient has been calculated whenever deemed necessary. T test was applied to determine the significance of differences between Inner Himalayan and Lower Hilly area boys for the 12 to 14 years age in each of the variables. Norms were formed for all the age group area wise.

### 5.2 Major Findings

The findings of the present study were as follows:

1. The result on the subjects of 12 years of age revealed that

   The performance of the Inner Himalayan boys showed superiority over the Lower Hilly boys in speed, explosive strength of legs, Strength of arms, agility, strength of legs and extensibility of hip muscle, and endurance.
The Lower Hilly boys performed better in height, weight and flexibility.

2. The result on the subjects of 13 years of age reveled that

The performance of the Inner Himalayan boys showed better performance in speed, strength of arms, agility, explosive strength of legs & extensibility of hip muscle, and endurance. The mean score of explosive strength of legs was also found better than Lower Hilly boys but it was not significant statically.

Lower Hilly boys performed better in the Height. In case of weight and flexibility the results of mean for these were comparatively better but not found significant statically.

3. The result on the subject of 14 years of age reveled that

The boys from Inner Himalayan showed better performance in Speed, strength of arms, agility,
explosive strength of legs & extensibility of hip muscle, and endurance. Although the mean performance was better in case of explosive strength of legs but statically it was not found significant.

The Lower Hilly boys performed better in height and weight. In case of flexibility the performance of Lower Hilly boys was better than Inner Himalayan boys but statically it was not found significant.

5.3 conclusions

The results of the present study, within limitations, warrant the following conclusions:

- The anthropometric measures of sports talent factors (Height and Body Weight) of both Inner Himalayan and Lower Hilly Boys of the ages 12, 13 and 14 years failed to fit in to SAI Sports talent test.
• Motor ability sports talent factors Speed, Explosive Strength, Agility, Flexibility, Cardio-Vascular Endurance fails to fit in to SAI Sports Talent Norms.

• The SAI Norms failed to grade the sports talent of the representative sample of Inner Himalayan and Lower Hilly area of Himachal Pradesh.

• The Inner Himalayan boys had better Sports Talent than Lower Hilly boys.

• The norms developed in this study have adequate objectivity with statistical acceptability. The norms of the test are gradable and can be useful to discriminate talented boys.

5.4 Recommendations

• Separate norms of SAI test of sports talent for other age group can be developed to identify the sports talent.
• Similar study in the future may be undertaken on the girls also.

• Additional study or other criterion measures related to physiological, physical fitness measurement etc.

• A special training programme in sports may be developed, so boys of Himachal Pradesh can fit in to the SAI norms of sports talent.

• As the high altitude boys had shown higher sports talent in the present study they should be encouraged to enrich the sports performance in our country.

• As the Lower hilly area boys had shown lower sports talent, a special training programme may be developed so boys of Himachal Pradesh can fit into the SAI norms.

• Researcher has prepared Percentile Norms, the study on its utility and success in select talent of sports can be taken a separate study.
5.5 Contribution to the knowledge

- This study contribute to enrich the literature of Indian Sports and Physical Education with the knowledge of establishing the percentile norms of the boys of ages 12, 13 and 14 years of Inner Himalayan and Lower Hilly region of H.P it will made possible to know standard score of boy from both areas.

- The knowledge as evolved the present piece of research contributes by knowing the factors of sports talent of the Himachal Pradesh Boys comparing with SAI Norms.

- The piece of research could contribute a new direction in evolving a new sports talent norms for the promotion of sports in state of Himachal Pradesh.

- This study would contribute to provide the norms for objective assessment and evaluation of the sports talent of the boys of Himachal Pradesh. Sports science would get a proper insight for developing a
norms region wise. This could be an additional contribution of knowledge to the sports literature in India.
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