Chapter III

PROCEDURE AND METHODOLOGY

In this chapter the procedure adopted for the selection of subjects, selection of the questionnaire, selection of training programme, Description of the questionnaire, Procedure of Administration of the questionnaire, Procedure of Administration of training programme, Collection of data, Experimental design and the statistical techniques for analyzing the data have been described.

Selection of the Subjects for Causal Attribution

To find out the causal attribution among the gymnasts, the subjects were Sports persons participating in the sub-junior, junior and Senior National Gymnastics Championships which were held in the years 1991-92 and 1993 at Allahabad, Amravati and Hyderabad respectively. The purpose of taking various age group of subjects was to find out the trend of attribution among the various age groups of gymnast. The selected gymnasts belonged to successful and unsuccessful category, which was decided on the basis of the records of the organisers of the respective Competitions. The top fourteen gymnasts on each apparatus namely Vaulting Horse, Pammelled Horse, Parallel Bars, Horizontal Bar, Roman Rings and Floor exercises of each age group viz., Sub-junior, junior and Senior were selected on the basis of the performance in the Team Championships (Competition No.1).
Six best gymnasts among the fourteen gymnasts selected on the basis of the results of the Team Championships (Competition No.1), who were eligible to participate in the Individual Apparatus Championships (Competition No.3), were considered as successful gymnasts and the last six gymnasts among the fourteen gymnasts selected from the Team championships were considered as unsuccessful gymnasts. The two extra gymnasts had been selected from the Team championships, keeping in view the fact that sometimes the same gymnast falls under the category of the successful gymnast on more than one apparatus. To eliminate the error of repeating the same individual's data on more than one apparatus, the investigator considered two extra gymnasts.

A total of thirty six male gymnasts acted as successful gymnasts and another thirty six male gymnasts acted as unsuccessful gymnasts. All the gymnasts represented different states and union territories.

Selection of Subjects for Training Programme

Gymnasts who acted as subjects for the training programme were selected from Delhi State only, because on the part of the investigator it was not possible to conduct the training programme on the gymnasts of the different states. Further, to ensure more controlled training Programmes, the investigator selected the subjects from Delhi only. After the Delhi state Championships was over
for junior and Sub-junior age group, the subjects were selected after the competition on the basis of the records available with the organisers of the competition. Since, in state championships only one competition, i.e. Team championships was conducted the subjects were selected from this competition only. Sub-junior and junior level gymnasts were selected who were in the developmental stage, whose behaviour is more amendable in comparison to seniors.

Winner team of the Junior age group and the winner team of the Sub-junior age group were given the causal attribution questionnaire (win) for the successful teams. And the runners up team of the junior and the runners up of the Sub-junior age group were given the causal attribution questionnaire (loss) for the unsuccessful team. Each team consisted of six gymnasts. A total of twenty four subjects were selected for the study in the beginning of the experiment. Finally, twenty subjects were considered for collection of the data, only those twenty subjects who were regularly attending the training programme. The investigator had developed good rapport with the coaches in training centres to be able to conduct the experiment. The coaches readily agreed to incorporate the training programme given by the investigator in their coaching schedules.

Selection of Test

The recent advances based on extensive psychological research have made possible an instrument that gives an
objective analysis of individual attribution. Traditionally, there have been three different ways of measuring causal attribution. The first is the structural rating scale method. The second method is the structural percentage rating scale method and the third method is referred to as an open-ended system. The athletes make their own attributions or select them from a long list of potential attributions. Structural percentage rating scale method is widely used as compared to structural rating scale and open-ended system. Ross (1977)\textsuperscript{1} concluded that the weakness of the open-ended system is that it leaves the experimenter with the task of assigning attribution to the appropriate dimension. The researcher and the athlete may not agree on the meaning of a causal attribution and often it is ambiguous. Therefore, a paper pencil test of attribution (win and lose) questionnaire prepared by Roberts\textsuperscript{2} was used for the study. The attribution questionnaire is a standardised, valid, reliable and objective test that can be given just after the end of the competition, to each individual or in group to yield a general assessment of attribution of sportspersons. This test has been widely used in our country by Indian Sport


\textsuperscript{2}Robert and Kenvis, A Test Book of Learning Experiences in Sports Psychology, P. 83.
psychologists on sport persons at different levels and of both sexes.

Description of the Questionnaire

In order to find out the attributional pattern of sportspersons the attribution questionnaire was applied. The questionnaire consisted of four statements dealing with following four variables, viz: Ability, Effort, Task difficulty and Luck. The first two dimensions represent internal attribution and the last two represents external attribution. Each statement has a nine point scale. It provides wide response opportunity to the subjects point "1" indicates "Not at all" and point "9" refers to "Very Much So". 3

Sportspersons were required to read carefully and as desired, circle any number to express his degree of involvement correctly. Therefore, circling number "9" was considered as "Very much so" and circling number "1" was considered as "Not at all".

Scoring of Questionnaire

The completed attribution questionnaire of each subject was first checked to make sure that subjects had not given double response to any statement and also have not omitted

3Roberts and Kvenis, A Text Book of Learning Experiences in Sports Psychology, P. 89.
responses to any statement. The circling of any of the number from 1 to 9 in terms of response for each statement was recorded as score for each of the dimension of attribution test. Totalling of the ability and effort dimension score was considered as internal attribution score, whereas, score in task difficulty and luck was considered as score obtained for external attribution.⁴

Administration of the Questionnaire for Causal Attribution

All the subjects were assembled in the presence of their respective coaches. Subjects were informed about the research study and were asked to fill the questionnaire in the presence of their coach. Successful gymnasts were given attribution questionnaire of winning team and unsuccessful gymnasts were given attribution questionnaire of losing team separately.

Collection of Data

The Questionnaire was administered to the gymnasts and after doing so the questionnaire were collected back from the gymnasts by the investigator. A total of four statements are mentioned in each questionnaire with a nine point scale. Separate questionnaire were given to successful (Attribution-win) and unsuccessful (Attribution-loss)

gymnasts. Statements of the questionnaire deals with the four aspects namely ability, effort, task-difficulty and luck. First two aspects indicated the score of internal factors of causal attribution of the gymnasts. Whereas, the total of the last two was the score of external attribution. score on each aspect separately, was the score of the individual on the single aspect of the causal attribution.

**Development of Model to Change External Attribution into Internal Attribution**

Maehr and Nicholls⁵ have proposed three forms of achievement goals, which affect the behaviour of individuals in achievement context, every athlete’s behaviour is directed towards some specific goal which he decides to achieve in achievement contexts. Some athlete’s goal is to maximize the subjective probability of attributing high ability to oneself, whereas, some are not concerned with competitive ability, but, are more concerned to perform as well as possible regardless of the outcome. Conversely, to both of the above mentioned goals, some athletes are motivated because their achievement goal is to gain approval from significant others. Since, these achievement goals affect the behaviour of the individual, the investigator has, prepared a model to develop external attribution into internal attribution, based on above mentioned three achievement goals.

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Since, motivation is a very complex phenomenon and the effect of which widely differ from one individual to another, the investigator has included a wide range of techniques to achieve these achievement goals. Literature has been consulted to select motivational techniques. Suggestions from experts in sport psychology has also been taken to prepare the model for changing external attribution into internal attribution. A complete structure of the model has been presented in Fig.1 on page No. 73-A.

Selection of Training Programme

Attribution theory considers that the athlete actively process information about an achievement event in an assumed logical fashion. Via this process, athletes construct what they believe has happened or caused the outcome of their athletic event. Based upon this cognitive process, the athlete decides upon present and future actions. Thus, attribution theory allowed sport researchers to conceptualize how achievement behaviour may be influenced by cognitive and perceptual process, as opposed to the motion of the person who is exclusively influenced by motive states, inertial tendencies, or future orientations. In the study of achievement behaviour, the cognitive conceptualization suggests that the person acts as well as reacts, in contrast to the mechanistic approach which
LA LIT SHARMA: MODEL FOR CHANGING EXTERNAL ATTRIBUTION TO INTERNAL ATTRIBUTION = Fig. 1.
assumes the person merely reacts. ⁶

High and low achievers differ in their attribution patterns and that those attribution differences account for behavior differences. ⁷ Maehr and Nicholls (1980)⁸ proposed that at least three forms of achievement goals affect the behaviors of individuals in achievement contents: (a) to demonstrate ability, (b) to be task-involved, and (c) to seek social-approval. These three forms of achievement goals ultimately help to change the behavior of the athlete. Attributional retraining of the gymnasts would help to achieve these achievement goals, which would encourage the gymnast to became task-involved or put more effort, it would also help to demonstrate the high level of ability in performing the skill. Dweck (1975)⁹ tested and proposed such a therapeutic strategy. The children in the attribution retraining condition were told after experiencing a failure to attribute the failure to an internal cause, such as lack of effort which could be

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⁷Gill, Psychological Dynamics of sports, P. 167.


modified with the combined effect of coach and athlete himself. Conversely, encourage the successful gymnast to attribute to ability which would help to develop the sense of pride and persistency in the performance.

**Competitive Ability:**

This goal is to maximize the subjective probability of attributing high ability to oneself and to minimize the probability of low ability to oneself. The athlete's primary concern is with his own ability and how it relates to that of others.

If one's ability is judged to be high, then one expects to demonstrate that ability as a desirable outcome. So, the athlete is expected to try hard to demonstrate ability, one way is by beating other athletes. Thus, winning a game is an important criterion of success for the athlete who is motivated by the goal of competitive ability. But it is important to realize that losing is not always judged to mean low ability.

In most sport contest, at least three assessments must be made by the athlete whose achievement goal is to demonstrate competitive ability. One is an assessment of the opponent's ability in relation to all other opponents. The opponents win/loss record is an important variable in judging relative strength. Second, the athlete must also judge how his or her own ability compares to the opponent's. Social comparison processes became important
here and one obvious criterion is whether the athlete won or lost the game.

The third assessment made by competitive ability oriented player is how much effort was applied by self and/or opponent, this assessment of effort is crucial.

For athletes who perceive themselves to be low in ability, applying effort that leads to failure clearly exposes one’s lack of ability. Because of this, these players expect to demonstrate ability which is an undesirable outcome for them. Consequently, it would be logical for them to apply little effort.

Same evidence does show that many who drop out have, as there achievement goal the desire to demonstrate ability (Ewing, 1981). These children probably perceive that the apart experience does not allow them to demonstrate ability. So dropping out, is a reasonable attractive for them.

Repeated failure experiences for perceived low ability athletes leads them to conclude that they do indeed lack capacity. Because, their achievement goal is to demonstrate ability, they avoid such achievement contexts in the future. Coaches may call them quitters, but the real reason they do

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try hard is because of their perceived low ability. Coaches have to try to change this low perceived ability into high perceived ability by using various techniques, such as reward informal competition with the person of the low ability group and by developing self confidence in the athlete.

For the perceived high ability players, failures violates their perception of ability and they exert immediate effort to correct this. Consequently, these players generally try hard. On the other hand, success may lead the athlete to exert less effort.

Players with high ability are expected to try harder and persists longer when confronted with athletes who are perceived to be as good or better in ability, or when the scoring remains close. These athletes may also show off during the game if they think they are winning or perceive that they are superior to their opponent. Low ability players are more likely to exert less effort. Following methods have been used by the investigator to develop the high perceived ability in the athlete which ultimately will develop the competitive ability of the athlete.

Reward:

Deci suggests that two aspects of reward can affect intrinsic motivation: the controlling aspect and the

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11Gill, Psychological Dynamics of Sports, PP. 150-151.
informational aspect. The informational aspects of intrinsic motivation was introduced by applying different techniques, keeping in view the suitability of applying these to the athletes. Some of the techniques which were used are as follows:

1. To enhance the individuals feeling of competence negative feelings were changed to positive feeling of competence.
2. By giving positive information about skills.
3. By providing positive information about the abilities and behaviours.
4. Reward was given for specific form of performance because it had more informational value than reward distributed randomly.
5. Reward was given in the forms of points to those who achieved their short-term goals.
6. Reward was given when gymnast sustained efforts in learning a skill was fulfilled.

Self Confidence\textsuperscript{12}:

Motivation is a term which is used to represent the selectivity, the intensity and the persistence which is present in behaviour. And since, this is the case, self-confidence should be viewed as a major component of

\textsuperscript{12}Albert V. Carron, Motivation Implication for Coaching and Teaching, (London Ontario : Sports Dynamics, Revenglass Crescent, 1984), PP. 115-123.
motivation. Self-confidence is exhibited by participants in the selectivity, intensity, and persistence they exhibit in sport and physical activity.

The major impetus for this increase is scholarly interest which came from work carried out by Albert Bandura on what he called self efficacy, which is defined as strength of a person’s conviction that he or she can successfully execute a behaviour, carry out a task or handle the responsibilities, necessary to produce a desired outcome is a situationally specific form of self-confidence.

Feelings of self-confidence arise from four principal sources: Performance accomplishment, Vicarious experiences, Verbal persuasions, and Emotional arousal. Research has found that many physical activities contains elements of danger or risk and, thus, can be referred to as high avoidance skill. Gymnastics, Swimming and diving represent only a few example. Observing others engaging in the threatening activity has proven to be a particularly effective technique to overcome this situation. Following techniques have been used to develop self-confidence in the gymnasts.

1. In the beginning gymnasts were asked to learn the simple skill which do not involve greater degree of difficulty (i.e."A" class elements).

All the measures were taken for safety purpose.

Gradually gymnasts were asked to learn more difficult skills which have high degree of risk and required good amount of courage to learn the skill.

Mental rehearsal of the skill was done by gymnasts to develop the concept of the movement which ultimately helped the gymnast to learn that skill more effectively and efficiently.

competition^14:->

Competition is a pre-dominant feature of our modern industrial society whether an individual competes directly against one or other individuals, against self-imposed standards or against fixed norms is relatively unimportant. These targets, goals or standards represents a strong source of motivation, a source which is referred to in a subsequent discussion as the participant’s competitor or competition.

The competitive drive is most strongly aroused when the two participants held the perception that they have a chance for success. If one person does not see any possibility for success, there is very little likelihood of competition occurring, in this type of situation. The competition will usually revert to an attempt to improve the weaker person’s skill through some form of Co-operative performance.

^14 Carron, Motivation Implication for Coaching and Teaching, PP. 54-59.
behaviour and responses which are successful and, consequently are rewarded become progressively stronger.

Following types of competition have been conducted. So, that the winning and losing is not only important for the gymnast, but, the main aim of conducting the competition is to develop the feeling of high ability in the gymnast.

1. After setting up their intermediate goal the competition was conducted to see how far they have achieved their inter-mediate goal.

2. Informal competition with the gymnast of slightly lower ability was conducted. So, that it would develop the feeling of competence in the gymnast which would ultimately help the gymnast to perceive a high ability.

Analysis of Outcome

Analysis of outcome means what the individual thinks and/or what the individual knows. It has been assumed, quite rightly, that what we think, the way that we perceive things, and the information that we come to accept as "fact" can have a direct influence on our motivation and behaviour. An outcome to that extent then occurs which is interpreted as success or failure. It is important to bear in mind that

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15Carron, Motivation Implication for Coaching and Teaching, PP. 84-95.
success and failure are near absolute events, they are psychological states which are intimately related to the individuals expectations and perceptions. After the events occurs, the individual analyzes it in light of the information available, previous experiences, any expectations which were held prior to the event, and the impact of external factors. The outcome is attributed to same cause.

The following techniques have been used to make use of the analysis of outcome for the changing of external attribution into internal attribution.

1. The attribute to internal causes were encouraged and another goal was set which was challenging to the student.

2. Gymnasts those attribute to external causes were made to compete with the gymnast of lower ability. Because it may enhance the self-confidence of the gymnast.

3. Gymnasts were encouraged to attribute their performance outcome to the internal causes.

Sports Mastery\(^1^6\)

Some athletes are not concerned with competitive ability. They are still ability oriented but tend to focus on performance, the goal of this behaviour being to perform

\(^{1^6}\)Silva and Weinberg, Psychological foundation of Sport, P. 220.
as well as possible regardless of the outcome. This type of achievement behaviour is termed sports mastery. The demonstration of ability is not necessary in this form of achievement behaviour, rather, the player tries to achieve mastery, improving or perfecting a skill rather than demonstrating higher capacity than others.

When individuals are striving to develop or demonstrate ability in the sport mastery sense, they are often described as being task involved or intrinsically motivated—when adults, extreme states of sport mastery are often characterized by a marked sense of personal control and an equally marked loss of ego.

Sports mastery is less complex than competitive ability. The athlete does not have to assess competencies of others in order to reach judgments about probable success or failure. The sport mastery oriented player simply processes the information that the task or situation provides. The player does the task and processes his/her own level of mastery. Again, effort is important in this concept of achievement but, in this case, effort is seen to lead to greater learning, mastery, or eventual competence. Individuals who are sport mastery oriented cannot display low ability. If they work at an easy task, mastery may not be demonstrated but a lack of ability is not demonstrated either. The individual chooses a task and applies the degree of effort he perceive as necessary to complete it. Any ability cues in the task merely inform the athlete of
his own level of mastery.

Since, mastery oriented players do believe in improving or perfecting a skill in the form of achievement behaviour. Investigator have selected following motivational techniques to achieve sports mastery.

goal Setting\textsuperscript{17}:-->

Time can be managed more effectively through the setting of the goals. The quality of performance can improve as well. Long-term-goals are those to be reached at the end of a specified reasonable length of time, short-term goals are intermediary goals that, when accomplished, contribute to the realisation of long-term goals. Goals must be related to present capabilities and perceived potentialities, opportunities to train, and a desire to work. By ensuring the athlete’s rational interpretation of each performance, there is less chance of performing badly in a future situation due to loss of motivation because of (a) overconfidence and an unrealistically high interpretation of past performance or (b) under confidence and unrealistically low appraisal of past performance. These goals provide athletes with something concrete to direct their energies towards attainment of that goals. Since

goals are specified, they can be evaluated. Specific analysis of performance are useful in that such information can be used to restructure training programme if necessary to remedy weakness.

Since, setting of goal is an important technique for developing the quality of performance. In the following ways the goal was set for the gymnast in the training programme.

1. Gymnasts were asked to write the long-term goal in their diary what they wanted to achieve at the end of the twenty weeks of training.
2. For the attainment of the long term goal the intermediate goals were set and analysed periodically which ultimately helped in achieving the long-term goal.
3. Intermediate goals were in the form of learning a new skill or securing the different points in the intermediate competition.

Shaping Attitude\(^{18}\):

It is well accepted that attitude is formed and strengthened as a result of experiences relatively early in life. Family, friends and others of significance to the child will have a strong influence on the shaping of his or her attitudes towards any thing or any body. Major ways

\(^{18}\)Singer, Sustaining Motivation in Sport P. 27.
Children learn are through observation and reinforcement. The behaviour of meaningful people have a strong influence, and many of these will be copied by children. The behaviour of the child can be encouraged, discouraged or ignored.

Praise and support can be given for the demonstration of desirable behaviours for non-desirable ones, punishment or non-attention may be effective.

Keeping in view the different opinion on shaping the attitude investigator has selected various techniques considering the individual differences among the gymnasts.

1. Words of Praise were used for encouraging the gymnast for putting effort in learning a skill.
2. Support by the teammates was sought to the gymnast in enhancing the desired behaviour.
3. Child is influenced by the behaviour of the parents, friends and significant other and have positive effect on the development of the attitude of the child.
4. Those who were not putting enough effort were given less attention. Negative approach was also adopted to optimize the effort by gymnast to attain the goal.

Coping Style\textsuperscript{19}:

Another behavioural dimension underlying motivation is

\textsuperscript{19}Singer, Sustaining Motivation in Sport, P. 35.
related to the reason children give to explain their success and failure. The child with mastery orientation style attributes personal failure to not enough effort. The result is to try even harder the next time, for effort is valued. He or she has learned through previous experiences that sustained effort usually brings forth success.

"Learned helpless" children think that their failures are due to a lack of ability. These children generally demonstrate poor motivation as reflected in adequate persistence levels at challenging tasks, and obviously poor performances.

Following techniques have been used under the coping style.

1. While teaching the difficult skill the gymnast was shown the performance of those gymnast who have already learnt the skill perfectly.
2. Demonstration was given by those gymnast who were good at their skill.

Practice Session as a Motivator

It is possible that the repetitive presentation of drills over the course of a teaching year or coaching season might not detract from the participant's performance because

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\[\text{\textsuperscript{20}Carron, Motivation Implication for Coaching and Teaching, PP. 24-28.}\]
other motivational factors are undoubtedly in operation. For instance, those individuals with exceptional intrinsic motivation or a high need for achievement or those individuals or a good goal setting programme or receiving token rewards might maintain sufficient motivation for effective performance. But, there is no doubt that, in the general case, monotony of routine and a repetition in approach will detract from motivation. Having another person teach your class or coach your team occasionally is also a good idea. Sometimes changing the place of practice also positively affect the motivation of the student.

The following techniques have been used for changing the practice session of the gymnast.

1. Place of practice was changed from outdoor to indoor or vice-versa.
2. Change in the schedule of practice was made to bring novelty in training sessions.
3. Time of practice was also changed to break the monotony of training.

Social Approval

It is argued that people sometimes perform well and are motivated because their achievement goal is to gain approval

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from significant others. The players goal is to have significant others-coaches, parents, spectators and teammates-attribute virtuous intent to him rather than focus on the goals of competitive ability or sport mastery. Typically, the player's goal is to have the coach signify approval.

This form of achievement goal also focuses upon effort. Usually, the approval of the coach is perceived to be dependent upon effort. Coaches often encourage this perception in that they constantly try to raise the effort of athletes. To the athlete, trying hard and obtaining coach approval becomes the criterion of success and failure. Rather than playing well or beating the opponent, this player believes that trying hard is the achievement goal, with success and failure being perceived when the coach either praises or criticises them for their effort.

This form of achievement goal is particularly relevant to younger children, as save evidence shows that children under the age of twelve are unable to accurately assess their own relative competence (Nicholls, 1978)\textsuperscript{22}. Consequently, children under twelve are particularly oriented towards effort and social approval, they perceive

\begin{quote}
\textsuperscript{22}J.G. Nicholls, "The development of the concepts of effort and ability, perception of own attainment, and the understanding that difficult tasks require more ability." Child development, 49 : 800-814 cited by Silva and Weinberg, Psychological foundation of Sport, P. 221.
\end{quote}
that they are successful. Doubtless, we are all familiar with children even though their abilities are not high. However, children do become perceptive as they grow older and begin to accurately assess their own relative competence in sports.

The investigator, has selected the following techniques to motivate those gymnasts whose achievement goal is to gain approval from those who exert a strong influence in someone’s life are described as significant others.

**Social-Reinforcement**

Reinforcement is considered to be "a natural term referring to one of the operations that will increase the strength of a response. A positive reinforcer is any stimulus which, when it follows a response, will increase the strength or maintain in occurrence of that response. A negative reinforcer is a stimulus, the removal of which increases. Research was conducted on university students practicing on a motor task. Four experimental groups were formed. Positive social reinforcement, negative social reinforcement and control. No difference were found among the groups.

Younger children do appear to be more sensitive to the use of social reinforcement than older children or adults.

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The teacher who says "very good" after every performance by every student may create a positive, humanistic environment.

Gerwitz and Baer\textsuperscript{24}, Stevenson (1961)\textsuperscript{25}, and Stevenson and Allen (1964)\textsuperscript{26} have all found that elementary school children show greater improvements in performance when social reinforcement is administered by people of the opposite sex.

Keeping in mind the findings of many authors, investigator have used following methods to giving positive reinforcement to the gymnast.

1. During the practice the gymnasts were asked to put maximum effort in learning a skill and coach encouraged them when they did it.

2. If the gymnast was unable to achieve his intermediate goal the reasons were found out and efforts were made to eliminate those factors.

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\text{\textsuperscript{24}J.L. Gerwitz and D.M. Baer, "The effects of brief social deprivation on behaviours for a social reinforcer". Journal of Abnormal Psychology, 56, 49-56 cited by Carron, Motivation Implication for Coaching and Teaching, (1984), P. 31.}\n
\text{\textsuperscript{26}H.W. Stevenson and S. Allen, "Adult performance as a function of Sex of S "Journal of Abnormal Social Psychology; 68, 214-216 cited by, Carron, Motivation Implication for Coaching and Teaching, P. 31.}\]
3. Members of the opposite sex were allowed to give comments on the performance of the gymnasts.

Expectation of others as a Motivator

It is inevitable that in dealing with new unfamiliar situations or people, we use any cues available-information from others. Past experiences and physical appearance. These cues also lead to the development of expectation. A series of experiments by many researcher serves to illustrate how pre performance expectations can influence the perception and judgments of officials, coaches and teachers also develop expectations from physical cues and characteristics such as size, body type and sex. Expectations held by teachers and coaches regarding the level of ability of an individual have an influence on that individual's motivation and performance.

Since, individual difference greatly influence this factors, how and which individual is significant to the individual, investigator have included number of individuals which includes coaches, teachers, parents and officials.

1. The expectation of the coach from each gymnast was made known to him to get motivated to reach to that level.
2. Similarly expectation of parents were also told to each gymnast to work hard and achieve the level.

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27 Carron, Motivation Implication for Coaching and Teaching, P. 114.
Social psychologists have been interested in the impact of what is referred to as social presence upon performance. Since, the beginning of the twentieth century, when people begin watching, motivation is increased and performance improves. If, on the other hand, a person has not learned a task very well, the presence of others will be distracting, successful or anxiety producing. So, depending upon the level of proficiency or the stage of learning of the performer, the presence of others could be harmful or beneficial.

Since, this technique variably influence the individual and it could be harmful to the gymnast. Investigator has included wide range of the techniques to motivate the individual.

1. During the training period, sometime the parents and significant others of gymnasts were allowed to see their training schedule.

2. Senior coaches of the other training centres were also invited from time-to-time.

3. The Secretary of Gymnastics Federation of India was invited occasionally to visit the training center.

4. Considering the opposite sex influence, sometime the boys were made to practice in front of girls.

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28Carron, Motivation Implication for Coaching and Teaching, PP. 48-52.
Groups, like individuals, set goals for themselves. Thus, a hockey team might have a long term goal such as a reduction in its goals-against average, a decrease in penalty minutes per game, or an improvement in the ratio of shots taken to shots on goal. Their goal might be short term such as increasing the number of body checks in an upcoming period. Each of these goals is set out for the total team and not for any specific individual. But, the goals set by the team and the successes or failures experienced also influence the individual members motivation.

Although, the factors referred to here as team is not directly subject to modification and manipulation, it is possible for the coach and teacher to have some influence over them over an extended period of time.

Gymnastics is considered to be an individual sport, but as far as learning is concerned team play an important role in learning of gymnastics skills of varied difficulty. Investigator has selected the following methods to implement this technique for the benefit of the gymnasts.

1. All the teammates were asked to encourage a gymnast who was performing difficult elements.

29 Carron, Motivation Implication for Coaching and Teaching, PP. 62-68.
2. Better skilled teammates provided constructive competition to challenge the gymnast to learn new skills.

3. Gymnasts were not allowed to practice alone, but always in the company of other gymnasts to give them the feeling of togetherness.

Administration of the Training Programme

Different techniques have been used by the investigator for the development of the model and subsequently, twenty weeks of training programme was prepared by the investigator himself with the help of the suggestions proposed by Maehr and Nicholls, literature and experts.

The investigator made himself available at the training centre two days in a week, on each centre, while the training programme was carried on, to make the remaining programme more effective and to solve the problems of the coaches which they come across while carrying out this training programme.

Psychological training is an integral part of total training. So, the training programme was carried out during training schedules of the gymnast. Training was carried out for six days a week for twenty weeks. Twenty weeks of training have been used considering the concept that sufficient time is required to bring change in behaviour.
The programme which was developed by the investigator was written indicating the weekly training for twenty weeks and distributed to the respective coaches who were incorporating it in their training schedule was formulated on the basis of the model prepared by the investigator. The weekly programme has been given in Appendix A.

Collection of Data After Training Programme.

The investigator has selected the gymnasts from Delhi state only for the purpose of the experiment. Considering the feasibility of conducting the training programme, after the Delhi state championship for junior and sub-junior age group, the subjects were selected from the competition on the basis of the records available. Since, in state championship only one competition i.e. team championship was conducted. The investigator selected the subjects from this very competition.

Winner team of the junior age group and the winner of the sub-junior age group were administered the causal attribution questionnaire (winning team), and the Runners up team of the junior age group and the runners up team of the sub-junior age group were administered the causal attribution questionnaire (losing team). Each team consisted of six gymnasts, therefore, twelve gymnast were administered causal attribution questionnaire (winning team) and another twelve gymnasts were administered causal attribution questionnaire (losing team). A total of twenty
Four subjects were selected for the training. Scores in these questionnaire was considered as their pre-test of the causal attribution.

After the twenty weeks training again the questionnaire of causal attribution was administered to the twenty subjects. The subjects had regularly participated in their training programme, without being absent at all. Four subjects were eliminated from the study because of being irregular due to injury or other unavoidable circumstances. The scores of the twenty subjects on causal attribution was considered as post data of the training programme.

Experimental Design

Single group design was applied for this study to determine the influence of training programme on changing the external attribution to internal attribution.

Statistical Analysis

To determine the causal attribution of successful and unsuccessful competitive male gymnast among various age groups "Two-Way Analysis of Variance" was applied. The level of significance was set at .05 level of confidence.

Influence of training programme was also determined by

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comparing the Pre-Score, which was collected before the start of training programme with the post-score collected after the twenty weeks of training with the help of the "Correlated t"\textsuperscript{31} test. The level of significance was set at .05 level of confidence.

\textsuperscript{31}Garett and Woodwarth, \textit{Statistics in Psychology and Education}, P. 291.