Pre-competition Preparation for Throwers
by Zhang Yingbo

The author gives his views on the organisation of the vital pre-competition phase of training for throwers. He provides information about technique oriented training, explains how to convert overall physical capacity into specific explosive power and stresses the importance of intensity control and the correct psychological approach.

1. Introduction

A well organised pre-competitive training or specific preparation period is extremely important for all throwers because of the technical complexity of the events and the essential requirement of physical power.

The current trend in the pre-competitive training formats of my top level throwers and the experience of many other coaches lead me to conclude that the following aspects are of great importance during this training period.

2. Technique Oriented Training

A highly efficient and stable technique is essential to enable throwers to realise their full potential during competition and to give them confidence before it. Consequently, achieving maximum motor precision and reliability should be the main task. Although the development of technique should take place all year round, at this time these two factors should take precedence to some extent. By this I mean that attempts to make major changes in technique should be avoided. This might seem paradoxical, but in fact it is vital to success in competition. For this reason, in technical training one should lay emphasis on the following components:

- Repetitions of throws with competitive implements to facilitate adaptation to the correct technique.
- Repetitions of throws with lighter implements to achieve an increase in movement speed and a better neuromuscular co-ordination.

Zhang Yingbo is an Instructor and Throwing Coach at the Track and Field Dept. of the Beijing Institute of P.E. He is also an IAAF lecturer.
• Imitations of the total technical movement as fast as possible or at competition speed, for the maintenance of good rhythm and refinement of the technique.
• Participating in minor competitions, as part of training in order to achieve the best competition form, physiologically and psychologically.

3. Conversion of overall physical capacity into specific explosive power

Along with the tapering-off in volume of the general training in this period, the intensity of each exercise increases and the motor feedbacks into the central nervous system (CNS) become sharper and clearer, which gives rise to a better control over the throwers' voluntary movements. This provides a good opportunity for them to undertake comparatively complicated exercises that are close to the complete technique. It is thus possible for throwers to convert their general physical capacity, acquired during the general preparation period, into explosive power for the coming major competition. To attain this aim, throwers should undertake a large number of exercises that include the following:

• Exercises that resemble the event regarding body position, such as imitative drills with implements of varying weights.
• Exercises that have a similar sequence of movements of the body segments as that which occurs in the competition event, in order to encourage an effective summation of force, such as the snatch in weight training, the standing throw with various weights, the standing long jump etc.
• Speed oriented exercises with a single movement and with successive movements, to develop speed of movement and a sense of rhythm such as starts, accelerations, throws with light implements as quickly as possible etc.
• Plyometrics imitating technical movements, such as fast rotations in succession, horizontal and vertical flies with different weights etc.

4. Intensity control

Top performance in competition denotes the mastering of the ability to throw with maximum intensity, so that the control of maximum throwing intensity before competition should take priority over all other training elements. Some people think that the intensity of throwing should be increased as much as possible during this period but, in my opinion, they are only partially right, because we must take the cycle of the human body's neuro-psychic rehabilitation into full account. As a matter of fact, many world-class throwers normally limit their throwing intensity to 90-95% of the maximum about 3-7 days before competition. The intensity of other exercises also needs to be limited, but to a rather less extent. Intensity control, together with the gradual decrease in the training volume, enables throwers to be well prepared physiologically and psychologically for the impending competition.

5. Psychological approach

A pre-requisite for success in major competitions is the thrower's capacity to acquire such psychological advantages as will power, confidence, self-control and proper motivation, because nowadays, in major competitions, there is such a narrow gap between the physical potential of the athletes that psychological advantages are becoming more and more significant. The following psychological training methods can be recommended during this period:

• Competition simulation may improve the thrower's stability. This includes
  a) Training under competition conditions and experiencing the difficulties, pressures and emotions evoked by the competition surroundings.
  b) Using audio and video means to simulate the coming competition.
  c) Mental rehearsal.
Technical visualisation is indispensable for establishing an automatic control system, thus making the throwing technique more precise, stable and effective. This psychological exercise includes:

1) Mental repetitions of overall technical execution.
2) Visualising the key points of a successful throw, such as a good rhythm, wide range, leg dominance and an explosive release.
3) Mental repetitions of the key movements, separately and successively, in accordance with the thrower's personal technique.
4) Combining the above with actual throws.

Psychological preparation for competition also helps throwers to reach their best form. This may be carried out with the aid of a psychologist, taking into account the temperament of the thrower.

The main training aim, during this period, is to give the throwers a competitive edge. The effectiveness of the training, in my view, depends mainly on the harmony between the throwers' central nervous system and their physical power. This is why I emphasise the psychological approach at this time, since it might set up more reliable and closer links between them. 'Where there is a will, there is a way'.

Before working out a scientific pre-competitive programme on the above lines, due consideration should be given to individual variations.