Training Periodisation -the Speed and Power athlete (N F Bartlett- AAI May 2025)

The most common models we see are the linear (classic) periodisation and the non-linear (undulating) model. Both programmes commence with high volume-low intensity training and move towards lower volume and high intensity training. This approach may take up to 2-3 months with a structured system allowing the athlete's body to perform at a higher intensity and training load leading into the next phase.

Linear model (Long to Short): The benefit of this model is that each phase focuses on a specific training parameter, making repetition and loading schemes predictable. This is determined by which phase you are currently in. This model ensures that strength, power and speed are trained step by step. The limits of this model generally only allow for one single main peak in the season. Also, some training parameters may be hard to maintain when moving to a new phase I.e. maintaining strength in a power phase.

Reverse Linear model (Short to Long): This model adjusts load and volume but in reserve order. Therefore, increasing volume and decreasing load as the season progresses i.e. For gym work, increasing the volume weekly from 4-6 reps to loads of 10-12 reps closer to the competition phase. This results in lifting at lower intensities within the competition phase. With more reps and sets, this allows the athlete to build more muscular endurance. Studies have proven that the linear model is more effective for strength and hypertrophy development. Reverse linear model programmes have shown to develop greater muscular endurance qualities.

Non-Linear model (Undulating): This training allows volume and load to be varied more often i.e. daily, weekly & fortnightly. An example could be to complete a high volume/low intensity session followed by a low volume /high intensity session the next week. In linear, a cycle would consist of building up the load of the same exercises until the block is finished. Many changes in training variables provides a multi-faceted stimulus for the neuro muscular system. Non-linear allows for changes in the programme and supports the athletes recovery status and competition schedule. This model allows for more changes, as several training parameters can be trained at the same time i.e. strength and power in the same week. This model also allows for several peaks in performance throughout the season.

Conclusion: There appears to be a movement to the non-linear model. Note that an appropriate strength base needs to be established. Also, the non-linear model aims to develop several performance characteristics at once, it may not allow each component to be optimally developed. Therefore, I would use a non-linear model for "experienced" athletes. Also, when planning for the annual training regime, design rest periods i.e. 4 x one week's rest or active rest periods, during the year. Look carefully at tapering your athletes before important meets. 3 common types of tapering are the following: Step model: Drop 50% volume straight away. Linear taper: Gradual decrease. Existing potentials: 5% less from the previous sessions volume.