

CHALLENGING HABIT: PLANNING AND PREPARATION, THE ART OF PERIODISATION AND OPTIMISING PERFORMANCE

By Matthew Wyon

A question to start - what is the goal, *raison d'être* of a dance company? Hopefully you will agree that it is the performance, but a lot of current practice within the dance world is actually having the opposite effect. For example, rehearsing long hours right up to the start of a tour or performance; whilst on tour rehearsing all afternoon prior to an evening performance; the training focus being one-dimensional with too much emphasis on the technical aspects of dance and only paying lip service to the other components of performance.

The concept of periodisation is to help optimise the preparation for performance for the dancers so they reach opening night mentally, physically and technically ready to perform. Needs analysis and planning is the key to good periodisation. And for that, co-operation between the different parties involved is vital, in addition to – of course – the basic *will* to challenge one's own habits and to check out other knowledge can be useful for dance. Needs analysis refers to the examination of the possible demands that the performance is going to place on the dancer. Depending on how the piece is developed (experimentation, previously set etcetera) will determine the amount of prior knowledge of its demands is available to the planner. Hopefully the choreographer will have a broad concept of the piece and this will form the basis of initial plans, but the planner will need to be flexible.

Some other questions that need to be answered are the extent of lifting, jumping, partner work within the piece, the length of time that the choreographer has to produce the work, the present physical, mental and technical condition of the dancers, the group dynamics of the company, the length of the performance period, the amount of travel that needs to be done.

The planning component is the difficult part. The planner needs to decide on the importance of all the different components of the 'whole' that makes up performance preparation and then decide how to organise and prioritise them; within this need to be included rest and travel days. The main thing to remember is to work *backwards* from the start of the performance period and this is where some controversies begin.

Tapering period

Just prior to the start of performance a 'tapering period' needs to be incorporated into the schedule. This is a period of three to four days when there is a reduction in workload that allows a change in emphasis from preparation to performance to occur. For instance, if first night was on a Saturday then Monday and Tuesday would be normal rehearsal days. Wednesday, Thursday and Friday would be reduced workload days with a class and one run-through scheduled for each day – if travel to the venue is required this needs to take place on one of these days and not involve rehearsal of any kind. On the day of the actual performance minimal dancing should be programmed – parts of the piece can be used for warm-up – it is easy to succumb to worries and want to fit in rehearsals on this day but physiologically and psychologically this can be detrimental to the

actual performance. Time can be set aside for mental rehearsal of the piece both individually and as a company.

Tapering is vital to allow the dancers to change their focus mentally from a 'learning/perfecting' mind-set to a performing one and to allow their bodies to repair and replenish. The focus of the run through's needs to be on performing with feedback and comments at the end – the use of video is very useful for this. Optimal nutrition and plenty of rest should be planned into these days – obviously good nutrition should be an everyday occurrence but in these days the focus is on making sure that the muscles' and body's glycogen stores are full.

Tapering requires the choreographic process to be finished four days prior to the start of the performance and only minimal dance time, single run-throughs to occur in the subsequent days. Whether a choreographer can be persuaded to do this is another matter entirely. It must be remembered however that fatigue, whether it be mental or physical, has the one of the greatest negative effects on performance and the more technical the piece, the bigger the effect. The implementation of tapering is common practice within sport but its benefits have also been seen within dance (Wyon *et al.*, 2000). All the dancers in the study reported that they felt rested and wanted to perform, which they stated was unusual.

Rehearsals

On the rehearsal theme, it might be a good idea to think about programming them in the morning rather than the afternoon – dancers will have more energy and also be more mentally focused then than latter on during the day. This would mean a serious re-think on how the usual day is organised but how much of this is due to tradition rather than optimal learning. A shorter warm-up class is needed, again the usual one and a half hours is more tradition orientated than based on physiological, mental or motor control evidence; in fact the body and mind can be prepared in less than half an hour.

Another area of thought needs to be who is required for each rehearsal and the length of each rehearsal. Often specific rehearsals are scheduled for two to three hours, which is too long for anybody to concentrate fully, and not everybody is used all the time; even being in a rehearsal and not actually dancing is tiring. Rehearsals of thirty, forty minutes with ten minutes breaks in between would optimise learning and allow more specific selection on the dancers that are actually required. Obviously this is a theoretical ideal and in reality it might not work, but the aim is to think about how you approach rehearsals – what is tradition and what might be most advantageous for the you and the dancers.

Physical conditioning

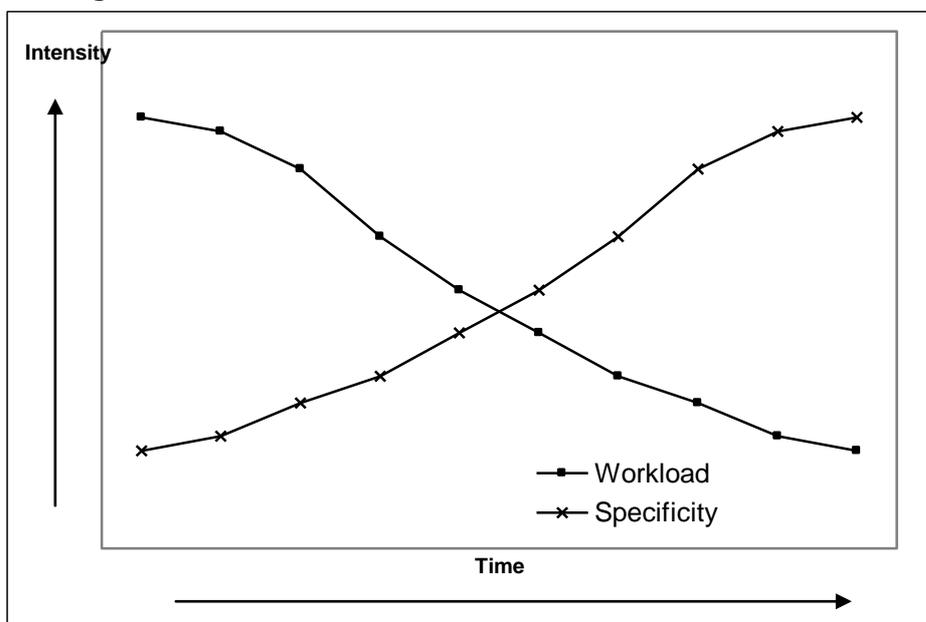
Physiological performance preparation takes longer than the usual rehearsal period and either needs to be an integral part of a company's schedule or a part of the independent dancer's daily training. Simply put, the majority of dance classes do not physically prepare the dancer for the demands of performance (Wyon *et al.* 2004). The dance class does not challenge the aerobic system and really only stimulates one of the two anaerobic systems (PCr) that generates energy for short-high intensity bursts of power (10-12 seconds). Observation of

dance performance on the other hand suggests that there is a greater reliance on the glycolysis systems, both aerobic and anaerobic.

Either a number of classes a week can be adapted to provide a training stimulus or supplemental training is needed (Wyon *et al.*, 2003). Research has shown the aerobic system needs to be developed initially to allow the optimal development of the anaerobic glycolytic system (Wathen and Roll, 1994).

There has also been a long debate of the optimal method of developing the aerobic system: continuous or intermittent exercise. I suggest the latter, as it resembles dance more closely and also has been shown to develop aerobic power faster than the continuous method (Virus, 1994). The work-to-rest ratio for aerobic training is 1:1, with the exercise periods being a minimum of two minutes in length (e.g. ten sets of two minutes exercise with intervening active rest periods). The anaerobic training is similar though the work-to-rest is different with longer rest periods and the work periods at a higher intensity. As the work intensity is higher the work period is shorter: thirty to forty seconds.

Figure: The relationship between workload and specificity for supplemental training



Apart from the cardiorespiratory development other areas of physical conditioning also need work. Strength and power are vital aspects of dance and again are not stimulated to the same extent in the dance class environment as seen within dance performance. The rehearsal period is also too late to develop these underlying components. The aim of periodisation is to develop these components prior to the start of rehearsals and then allow the piece-specific adaptations to take place during the rehearsal period.

The demands that today's choreographers are asking of their dancers requires the development of these components beyond the norm and the reliance on the usual body-conditioning regimes, such as Pilates, will not place enough stress through the system to meet the required demands. The use of other training modes such as weight training should not be shunned due to the myth that they develop bulky, inflexible muscles – they don't (Koutedakis *et al.*,

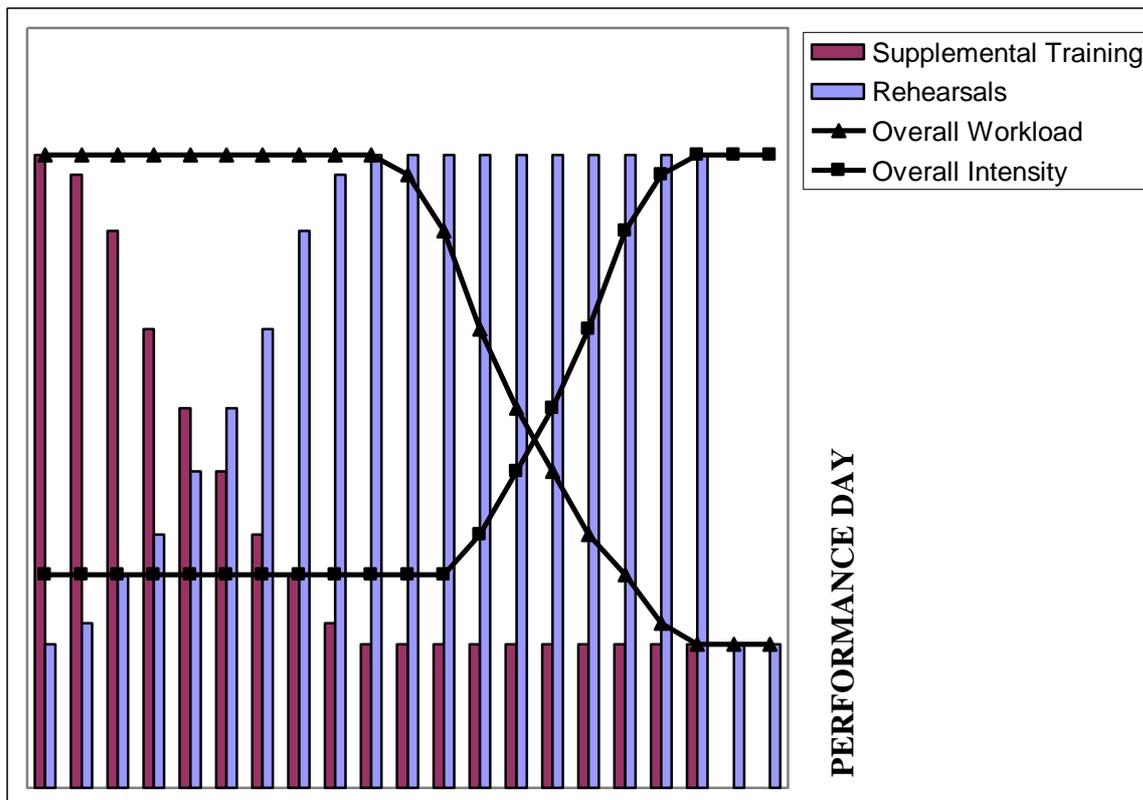
1996). Again it is how the muscles are trained or the stimulus that they are put under that determines how they adapt.

Strength development requires heavy weight, few reps (?) and lots of rest. Bulk development interestingly is very similar to muscle toning in that moderate weight is used with 10-12 reps; the difference between the two modes is that the former has little rest between the sets and more sets than the latter.

Just as the anaerobic system is based on aerobic foundations, power is formed on strength. Power is more dance-specific than strength and the movement patterns should be whole body and start to imitate the movement patterns seen in dance. Speed is a vital component of power training and should start to reflect the speed of movement seen in dance – obviously as the speed increases the weight decreases but the movements need to be controlled to prevent injury, plyometrics is a prime example of this training mode.

Where does actual dancing fit into all of this? Dance is the primary focus of the dancer's training schedule and any supplemental training needs to fit within the prescribed dance schedule. On this front the supplementary sessions should be planned for twenty to thirty minute slots and the dancer can decide on how many or few sessions can be fit into the day depending on their schedule and how they feel. The total work done by the dancer also needs to be considered and as the rehearsal schedule intensifies, the supplemental training decreases before a total tapering is instigated prior to the performance period.

Figure: The relationships between rehearsals, supplemental training and overall workload and intensity



Conclusion

The implementation of periodisation has occurred within a number of dance companies and the dancers have reported feeling the benefits (Wyon *et al.* 2000) – whether the performance was improved, obviously, is hard to tell. The evidence from the world of sport is overwhelming with all sports at the top levels implementing periodisation and tapering into their schedules (Bompa, 1994) not only to directly improve performance but to also reduce the chances of overtraining from occurring (Koutedakis *et al.*, 1999).

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