



NEWSLETTER

**Specialists in Athlete
Development**

Email: move.dynamics@googlemail.com

Tel: +44 7792 307619

Welcome to our September 2009 newsletter. The aim of our newsletter is to not only keep people informed of recent developments at Movement Dynamics UK, but to continue to provide information to those individuals responsible for the 'practical' implementation of Athlete Development.

Physical Competence Assessment (PCA) and Development

More thoughts on 'what to do next?'

Practitioners are reporting a variety of assessment processes that they have created from the resources and it may be worthwhile to outline some of the main features for others to consider.

One fact that keeps on being repeated from practitioners is that, at last, they have a starting point for each individual athlete in their care. It was obviously very difficult to move away from the 'one training program photocopied 20 times' syndrome without any means of ascertaining where on the exercise continuum each athlete was appearing.

Although there are over 60 tests to consider several practitioners have started small with just a few tests as an exploratory project. The last 6 years of athlete profiling has thrown up a certain rhythm of results that are worth considering. In general terms, at the top of the list of limitations (scores of 3 and under) is Flexibility. Usually a physical quality relegated to the garbage-bin of the session (the warm-down) where little direct coaching takes place and athletes go through some prehistoric ritual of doing very little while in some strange shapes, Flexibility deserves some stronger action.

Athletes must be strong and flexible enough to not only get into the required postures but also maintain these positions and actions during dynamic movement. With locomotion requiring appropriate length and strength in a variety of body parts below the waist (Ankle, Knee and Hip complex) the Ankle Range Test is recommended as a starting point, quickly followed by Hip / Thigh range (Thomas 1 and 2). A poor Ankle range will negatively affect all triple flexion activity so this one appears in many practitioners selection. Poor Hip / Thigh range (Thomas 1 and 2) scores will negatively affect extension especially when accelerating. Although there are many specific stretching exercises that can be done at a remedial level for the anterior thigh I always refer practitioners to the Lunge matrix (Lunge & Reach / Bend / Rotate/ Throw / Catch) for illustrations of range improvement in a dynamic setting.

Next on the list of limitations is Single Leg efficiency as illustrated by the Single Leg Stance to Single Leg Squat test continuum. Current results indicate efficiency at 120° for most athletes (holding for 5-10sec), a significant drop in efficiency at 90°, very little success at a parallel position and seldom any score at all at the Single Leg repetitions to \geq parallel level. Regardless of these very poor scores, practitioners should not lose heart. The developing athlete is a master at adaptation and success will come once they are exposed to the Single Leg and Double Leg squatting action and also elements of the Lunge matrix. The sad thing is that in nearly every case when the athlete scores low in the triple flexion / extension movements (Double and Single Leg) they immediately tell the teacher or coach conducting the test that 'this was the first time I have seen this exercise!'

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Bridging / Plank / Bracing tests are also quite common to see especially the Lateral Bridge. Prone and Supine Bridges give scores that are often a little better – probably due to the fact that most athletes train in one plane using derivatives of the Olympic lifts. Establishing the athlete's ability to 'brace' laterally in this static test opens the door to a massive exercise reservoir of dynamic, multi-plane bracing.

The 'first time I have done the exercise' statements are an indictment of our PE lessons and our coaching sessions. Single plane and single joint exercises conducted with only load and volume in mind do little to build a reservoir of movement efficiency. 'Putting the "Physical" back into Physical Education' is a must-do thing and can be also be integrated into all coaching sessions. Our younger generations don't need to chase competition skill all the time. They need some robust effort on a daily basis so get them moving.

Think of the opportunity at Primary School level - what a time to get them moving! By 7 years of age the neural system is probably fully developed and these young people are primed for the development of balance, coordination and proprioception. Not only will the vehicle of physical activity produce some worthwhile well-being and health factors, it will also support academic achievement. Research abounds that illustrates the relationship between physical activity and learning so why ignore it?

Tracking progress is supported by creating a mini-battery of competence tests. Some Primary Schools have chosen:

- **Double Leg Squat (Hands Ahead)**
- **Lateral Bridge (R&L)**
- **Shoulder Lift-Off**
- **Push Up**
- **60° Sit Up**

Once the scores are assembled the activity program can take place. Just 5min a day will be OK if there is any reluctance to commit to a full exercise curriculum.

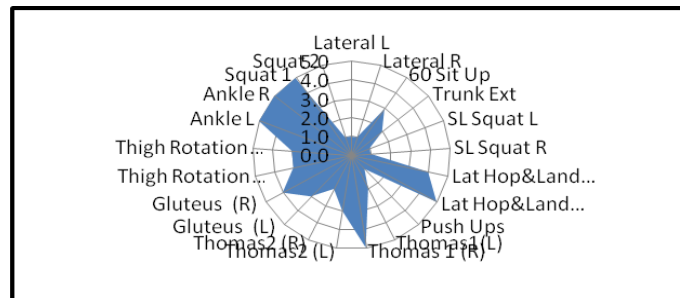
A project is underway that links PCA with a fantastic movement syllabus designed by Greg Thompson and Steve Myrland. Recognising that many teachers and coaches are lacking in the experience to teach movement and that there is little time allocated in the curriculum for putting the 'physical back into physical education' Greg and Steve have created a process called '5 in 5'. Five exercises in 5 minutes, all illustrated by video-clip and very simple to demonstrate, are at least a start. The intention is to commit one school in Michigan (USA) with one school in the UK to the program and see the results it may have on Physical Competence improvement.

These exercises can also be suitable for all coaching environments as they serve as the fundamental movement required by all sports specific postures and actions. Here we have an exact prescription for those teachers and coaches who don't have the background to make the exercise selection. The *Movement Dynamics Progressive Exercise Syllabus* software supports those teachers and coaches who do have some background and experience in athletic development and forms a reservoir of progressive exercises from which to choose.

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Results from PCA indicate that there is a movement efficiency problem within all generations of students and athletes. What is surprising is that very few adults appear to know this. If you saw these results for one of your students /athletes what would you think?



.....National Performance Director, are you concerned at all?

.....Head of Talent Identification, are you concerned at all?

.....Principal, are you concerned at all?

.....Parents, are you concerned at all?

'Simply repeating what you have always done and expecting a different result is the first sign of insanity'. Einstein

The 'Warm and Fuzzy' Myth

There are plenty of practitioners, especially those who work at the high performance end of the continuum, who see functional development as being an irrelevance to their environment. They need winning physical qualities, blistering acceleration, massive force production; forces developed at the speed of light, etc and reject movement efficiency in favour of these end-stage qualities due to the pressure for results they are exposed to.

The answer to dispelling this myth lies in the progression of fundamental actions and postures through to the end-stage.

Examples

Physical Competence Assessment: Double Leg Squat – Hands Ahead (Triple Flexion / Extension + Trunk-on-Hips stability)

Once mastered the progression starts and the practitioner can progress:

- From Slow to Fast by increasing the speed of the movement within the set or by performing Jump Squats as part of the Jumping development stream.

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The 'Warm and Fuzzy' Myth...continued

- **From Simple to Complex** by performing a Trunk Rotation during the Squat or performing a Trunk Bend during the Squat or by performing a Squat and Throw with a Medicine Ball.
- **From Unloaded to Loaded** by adding an external load (Medicine Ball, Sand Sack, Weighted Jacket, Barbell, Dumbbell(s))

By adding an external load and appropriately progressing it one can envisage the arrival at a point where the athlete can tolerate upwards of 100% bodyweight on the bar and develop power (60+ watts/kg) by performing Jump Squats with 30% bodyweight on the bar.

The answer to these end-stage qualities is to create a journey of precision in technique under a variety of speeds, loads and complexities. By creating and negotiating this progressive journey the end-stage environment is enhanced as opposed to the damage-control environments that we see at this stage where limitations in function and technique are ignored in favour of load.

The process of PCA continues throughout the athlete's journey to excellence. At the outset of the journey the PCA may be at the 'Double Leg Squat – Hands Ahead' level; at the mid teenage years when the athlete has 6-10 years of adaptive training under their belt may be assessed using the 'Double Leg Barbell Squat with 50% bodyweight'; at the end stage the athlete may be assessed at the 'Double Leg Squat – 3RM @ 150% bodyweight'. The assessment doesn't stop – it's called coaching.

The 'Apprentorship' Course, 2010 (Highly Recommended!)

The dates for this course have been decided for 2010, June 19th – 23rd, in Fort Lauderdale, Florida, USA.

The presentation team will remain very much the same as for 2009 with the probable addition of Franz Bosch.

Last year the numbers soared and it is likely that this will continue in 2010 so keep these dates in mind.

Vern Gambetta will set out the details on his website later in the year

(www.gambetta.com)