

Physical Competence and the '5in5'

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As we all digest the ramifications of the latest cut-backs and ponder on the long term issues that will grow from such reductions as the School Sports Partnerships it may be opportune to consider what 'Plan B' might be. The School Sport Partnerships mainly created a significant contribution of ideas and physical resources in the area of competitive sport. I have no gripe against that position but can't quite come to terms with the fact that while everyone was charging off towards the technical and tactical aspects of this 'competition' emphasis some critical components were being missed. I believe that all of our school population has the right to a basic entitlement in physical well-being and all you need for that is some time and commitment and little in the way of 'whistles and bells'.

The physical aspects of well-being are more important now than ever before. With the DFES stating that their concentration continues to be on competitive games development in the National PE Curriculum it is likely that such things as postural health and all-round movement efficiency may well take a back seat. In fact, if current Physical Competence scores are anything to go by, I think those well financed and resourced days missed the point. This 'competitive sport' emphasis was and continues to be a strange decision by the DFES as all research indicates that every sports specific action and posture demands a powerful movement vocabulary before the sports specific skills can be successfully learned and applied. I would suggest that a more holistic approach is taken where sports-specific learning is an 'earned' position, arrived at after all students have developed an appropriate movement vocabulary. By doing this well you can expect physical well-being for all and a strong start to sports specific skills for the 'few' that actually play competitive sport consistently.

From a learning point of view a commitment to a concerted effort in developing the ability to solve 'movement puzzles' from an early age explores the inextricable relationship between body and mind - particularly the *developing* body and mind. Building on the work of current researchers (John Ratey; Carla Hannaford, et al.) and of many earlier pioneers of cognitive development theory (Jean Piaget, among others), this program brings physical movement back into elementary and secondary school gyms and classrooms by way of improving students' ability to learn. Research demonstrates - clearly - that *movement-literate* children are more capable of becoming *cognitively-literate* children. Only by recognizing and preserving this essential link from physical to mental can we hope to overcome the explosive epidemic of obesity, diabetes and related infirmities which, combined, suggest that children today have life expectancies *shorter* than those of previous generations.

If the 2012 Olympic Games is to be a vehicle for a 'legacy' then let that legacy be more than buildings and 'things'. Let it be a concerted effort to re-align Physical Education to the needs of the 21st century community - a community that is in poor cardio-respiratory health, poor in nutritional health and poor in movement and postural efficiency. It must never be forgotten that our high performance athletes are a product of the community and unless these fundamental movement standards are raised there could be serious consequences in the international arena. The 2024 Olympic athletes are currently in our Primary school system and they are bereft of functional movement development. Why leave this movement instruction until the mid-teenage years when most of the time is spent correcting faults, if at all? Why not start early, especially when the period up to about 12 years of age is the most wonderful time for them to solve movement puzzles - something they will later have to do in the Olympic arena under speed, fatigue and pressure.

Conventional 'fitness' vehicles e.g. jogging, running, circuit training, etc., are all dependent upon movement efficiency to be able to optimally take advantage of the training modality. From these viewpoints it is clear that there are considerable benefits in improving the content and delivery of the foundations of physical well-being - movement efficiency and resilience.

There are obstacles to such change, history and tradition being just two to consider. Teachers and coaches who have the responsibility of 'building the athlete / student from the ground up' are often restricted by an inflexible environment (National PE Curriculum and the Fixture list to name but two). Couple this with the fact that 'movement', in its broadest sense, is the least likely choice of today's

children and adults and immediate change is out of the question. The key is to manipulate current lesson / training time to accommodate the adventure of movement development.

Further obstacles exist to a seamless transition to movement literacy development. Witness the unfortunate position of those agencies that train our teachers and coaches. With the concentration being on competitive games the content of the majority of Human Movement / Teacher Training / Coach Education courses is focused on the scientific and technical / tactical aspects of those games. Gas Analysis, Force Plates, Biomechanics, GPS tracking are the tools of the graduate coming out of these agencies to enter the teaching / coaching profession. Because of this, simple things like movement correction and movement progression seldom appear in the 'tool-box' of the PE teacher or Club Coach. This world of 'Athletic Development' is not a new-age spell, potion or gadget delivered by a 'guru'. It is an arsenal of commonsense systems, strategies and practices that centres on function before force, speed or sports-specific skill. It is a means of laying the correct foundation to physical well-being in the community and repeatable excellence in high performance sport.

Physical Competence Assessment

The 'where to start' question is answered by finding out 'where are they now'.

The pilot programs that integrate Physical Competence assessment and the modular movement curriculum known as '5in5' and other appropriate exercise prescriptions are currently underway in some Primary schools and sporting Clubs. This simple process allows the Teacher / Coach to establish (a) Where are they now? - by conducting the simple Physical Competence Assessment and then (b) creating and tracking improvement by utilising the modular structure of the '5in5' and other exercise prescriptions. In the senior sporting environment the assessment is used to establish movement limitations which can be addressed within the training program, often with additional input from sports medicine.

The assessment uses a selection of exercise 'movements' that give a snapshot of a person's ability to handle their bodyweight. Our daily tasks (and the foundation of all sports-specific movement achievement) challenge us to squat, lunge, push, pull, brace and rotate, usually in a multi-joint, multi-plane, multi-directional setting. The assessment investigates all of these facets of movement and allows the practitioner to establish the appropriate point on the exercise continuum at which the individual can be placed to start their journey.

The Physical Competence Assessment can be viewed as a means of 'plugging' physical well-being into the school curriculum. In the high performance setting it can be the tool for individualising an athlete's unique journey. It can form a tracking vehicle for teachers, parents and coaches as the athlete / student negotiates their development journey. It is worthwhile noting that the scores illustrated in the following results from a pilot project at a Primary school show a 1 – 5 scoring system and that a score of '5' is normal for the general population.

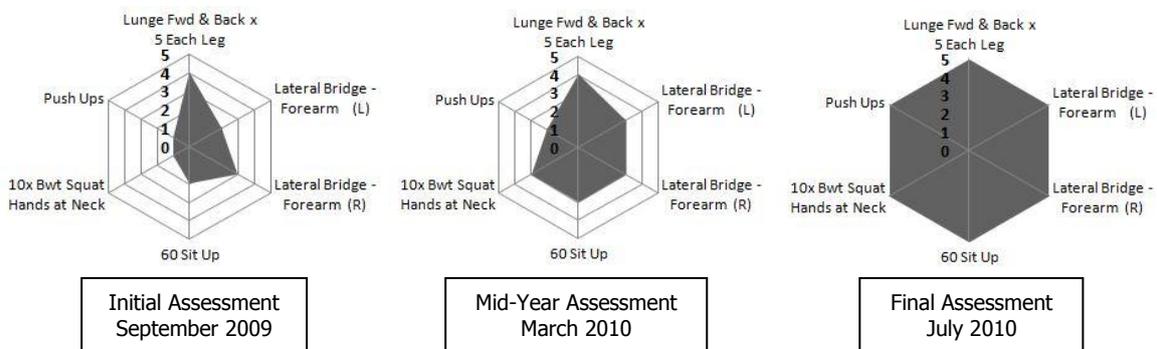


Fig 1 ~ A means of tracking / reporting?

The '5in5' Concept

'5 in 5' was designed to integrate the best information available into a short-exposure exercise program that can be used in single, 5 exercise modules or combined into longer exercise sessions. The concept of 'short-exposure' was created due to the fact that those responsible for delivering programs (Teachers and Coaches) already had their hands full with curriculum, timetables and fixture lists. It was hoped that by utilising small portions of time to appropriate movement efficiency development the practitioner would be able to construct a seamless inclusion of these vital components. The Department of Health's recommendation for 60min of moderate exercise each day is a 'bridge too far' for most organisations and practitioners and so the compromise of 'short-exposure' modules may ease the so called burden.

At its foundation is the idea that one should strengthen movements, not individual muscles. Also imbedded in the program is the principle that various elements of physical fitness should be combined. So you will find exercises that create strength, balance and flexibility simultaneously. This "organic" approach to fitness combines physical demands in ways the body will need to use them.

The modules were designed so that each five exercise cluster includes several elements that are essential to the development of athleticism:

First, multiple joint movements are the cornerstone of the program. Athletes and people of all ages need muscles to work together as synergists. Strength must be developed from toenails to fingernails along kinetic chains. Second, each module has exercises that elicit improvement in balance. Athletic development coaches have long understood the importance of developing balance at the same time as strength. One without the other is of limited use. Third, each module has exercises that move the body in multiple directions. As people move through their daily lives, whether athletes or not, the world throws movement challenges that include bracing, bending, pushing, pulling, lifting and twisting. The modules are designed to emulate life's movements, whether you are an aspiring athlete or office worker. Finally, each module is designed to improve dynamic flexibility. Regardless of one's age, diminished flexibility can predispose a person to injury. You will find the exercises included in the program will gradually revitalise range of motion.

The exercises are simple and progressive and can be 'turned up' (made more difficult) or 'turned down' (made easier) to suit any level of attainment and learning. They can be expanded to form parts of a warm-up for sporting environments or can simply play their part in the daily activity requirements of the growing child, parents and athletes.

In the early lesson / session setting the recommendation is that the exercises are delivered as a 'movement puzzle' in the first instance with little direct coaching taking place. By showing (video) or demonstrating the movement the teacher can let the process unfold with a 'guided discovery' technique where the student finds their own answer to the puzzle. As they adapt to the movement some of the 'must-do' coaching points can be used to guide towards the most efficient movement.

Modules are included that utilise simple equipment such as broomsticks, medicine balls, sand-sacks, etc. In a high performance setting dumbbells, barbells and kettle-bells can be used.

Practitioners in the sports performance environment also have a 'short-exposure' opportunity by utilising the warm-up and warm-down sections of the session as movement opportunities. Every sports-specific action or posture demands that the participant has an appropriate level of movement efficiency to carry out the tasks demanded by the sport's techniques. Without the foundation of a powerful movement vocabulary all sporting techniques may well become flawed due to the development of compensatory movements.

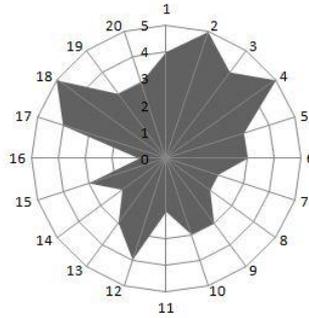


Fig 2 ~ Results from a Senior International Squad of players. 'These limitations don't go away by just playing the sport.'

So, a reference point may well be as follows: "Give them the Physical Competence to do the technical stuff and the technical competence to do the tactical stuff – in that order."

These Physical Competence limitations, once put under the pressure of training intensity and volume, often result in injury. It is known that many 'controllable' injuries (soft tissue) are created by loading poor movements which begins the cascade towards tissue failure. Technical development can also be harmed as the compensatory movements get the upper hand.

Still in development (we are only part-time players in this) the '5in5' can be expanded to much larger commitments to movement where more extended periods of time can be devoted. There are instances where entire sessions have been given over to this work.

In essence it can be viewed as a tool to put the 'Physical' back into Physical Education and as a vehicle for the coach to plot an exact development journey towards repeatable excellence. It is flexible in design and can be utilised in many forms by the creative teacher / coach. More information on Physical Competence and the '5in5' can be seen at www.movementdynamics.com. or kb Giles@gmail.com

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