

A Recent Conversation about Physical Literacy

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I am proud to belong to the GAIN network and being a member exposes me to some quite brilliant minds who always seem to be questioning their assumptions. My colleague, Joe Przytula, who is an Administrator at Elizabeth High School in New Jersey, USA, clearly understands the consequences of the Physical Literacy question. In a recent post on the GAIN network he stimulated a discussion that I share here. Without doubt, there are many unanswered questions and certainly myriad solutions to the problem but maybe this exchange might throw some additional light on the subject.

My first comments:

Hi Everyone. What a great topic and, as usual, some very pertinent observations. I am not at all sure if I can make a realistic contribution but there are some things that I have been involved in and witnessed over recent years that might add some more colour to the discussion. As usual my thoughts will jump about and move between rambling and cynicism so beware!

First thing is the definition, and I have meandered from ‘couldn’t care less’ through to trying to help with the definition. I have read several government attempts at defining Physical Literacy (UK and Australia) but my cynicism quickly led me to ignore them. Why ignore them? Because I am sick and tired of a bunch of wordsmiths using up valuable financial resources to create a document that will never get to be deliverable. I have read athlete and coaching ‘pathways’ until I am nauseous – only to see a decade later that nothing has changed at the ‘coal-face’ and we are all still facing the limitations that these ‘pathways’ should have eradicated.

I then realised that unless I got involved in trying to get a decent definition then nothing would change. No school or governing body will do anything unless they can measure it. I learned that without a definition you can’t get to the point of measuring whether the plan is working. If you can’t measure it then it won’t exist because no organisation will consider it. So.....’rock and hard place’.

While I have similar thoughts to, “I will know it when I see it”, I also had a clumsy attempt at re-visiting my own understanding and progression. As some of you are aware, I have a process in mind that seems to have been helpful to some coaches e.g.

1. Teach the foundation movements (Squat, Lunge, Pull, Push, Brace, Rotate, Hinge and Landing)
2. Teach them in every plane, direction, speed, amplitude, complexity (including all stages of the force/time continuum).
3. Teach them using the entire Explicit to Implicit learning continuum (Instruction to puzzles; individual to games and relays exposure)
4. Done correctly this plan of mechanical work will also contain the exposure to metabolic development
5. Now you have a Movement and Metabolic Vocabulary which, while it is being developed, can be used to support the learning of the skills of running, jumping, throwing, kicking, catching, striking and flotation.
6. Now you have the tools to visit the sports-specific actions and postures. You have earned the right to take on the demands of competitive games.

While I have continued my thoughts that this journey has some benefits, I decided to re-visit my own definition as part of the government exercise. Not being the brightest on all this I looked at what I thought was a decent definition of Literacy as a parent. I wanted my kids to be able to read, write and speak well enough to get through life. I wanted them to understand what they were reading, writing and saying. Finally, I wanted them to know when to use these tools to get the best outcome for whatever puzzle they faced on the childhood to adulthood journey they were on.

Add this understanding my own ideas of the journey from the Movement Vocabulary through to the sports-specific environment and I think I have a decent understanding of what Physical Literacy is. I explained this to the government think-tank but was pretty sure that my delivery was far too clumsy for them the 'get-it'.

I have attached the Australian documents which seem to stretch into some areas that appeal (check out the 'what it could look like' sections). While they have used the usual nonsensical jargon in places, they at least have used some illustrations that are appropriate.

I congratulated them on producing a nice exercise in 'wordsmithery' and told them that the colours were really nice on the document. I also pointed out that a decade from now nothing would be different unless they moved from rhetoric to action. I contacted them on several occasions to ask the pertinent questions of HOW? There is plenty of WHY and some acceptable illustrations of WHAT but nothing in the pipeline of HOW. How will Physical Education adapt to this? How will Teacher training adapt to this? How will Coach Education adapt to this? How will Coach Development adapt to this? How will parents adapt to this?

As many of you are aware, I have been trying to cross the bridge from 'jargon' to 'action' for many years, so I followed up with a list of actions that they could consider at Schools (PE) and Sport (NGB) levels. I offered them an outline of my Athletic Development course and Physical Competence course; I showed them the difference between teaching and pseudo-science; I offered them workshops on learning within the session / lesson. I mentioned GAIN, Steve, Greg, James, Joe and told them to hire you guys to cross the bridge for them. Three guesses as to the replies!!

Measurement

I am stuck here on how we are supposed to measure all this. I have no fears in measuring cardio-respiratory fitness via the Beep-Test. I have no fears in the formal or informal assessment of the movements. I am also happy to have competent teachers and coaches make a subjective assessment of movement and metabolic efficiency. I guess I am so busy putting out my own fires with the students and

athletes I am dealing with that I have little time to come up with a formal assessment for the nation to consider. With my students I revolve everything around personal bests whether they are running, throwing, squatting, pulling, etc. In one school I have used Greg T's ideas of a 'Wall of Fame' where the students assess each other on a range of activities (including the 5in5; PCA; Running, Jumping, Throwing). A personal best gets them on the Wall. From this range of results the school has set out some standards that each individual or class can aim for. No-one doesn't contribute. I have used the idea of the old 5 Star Award system where every child can get at least one point if they work hard and get committed to the cause.

All very clumsy I know but so far the Primary School kids are still turning up, still smiling and still wanting to be challenged whether it is a 'hot-foot-lizard', a sand-sack throw for distance overhead, or a music to movement challenge of creativity (do you remember my videos of movement from the 1970's in Kentucky? – well I am doing it again!) (now that is really subjective, so we go on the loudest cheer from the observers). The same things are occurring with all my professional sport athletes – many have gone back to the foundations and have to 'earn the right' to progress.

Other Stuff

It is the responsibility of all elements of our society to demand that every generation has physical and emotional well-being as a minimum requirement – in fact, it is a basic entitlement. The 'physical' component is made up of two parts – mechanical and metabolic and there should be a drive to create efficiency, consistency and resilience in both. Being physically literate means having the minimum ability in the aforementioned components, so you can continually maintain an appropriate standard as life unfolds. In some cases, this 'literacy' is seen in the solving of sports-specific puzzles in a competitive environment; in others it is simply the ability to move sufficiently well and often enough to maintain health.

For far too long most efforts to explain, quantify and endorse physical activity have been presented using the vehicle of competitive sport. This has usually reduced the effectiveness of the argument to the interested or talented few who are attracted to competitive sport. In our schools and in our community, there are scores of people who need a more appropriate vehicle. By all means continue the development of sporting Clubs and organisations but if we are really sincere about physical activity then we need a much wider and smarter set of vehicles for all the community to choose from.

PE needs to move from a competitive games-based curriculum to a more foundational curriculum upon which the choice of competitive sport can sit. The journey to high performance should start exactly the same way as the journey to physical health and well-being. It all starts at the 'General' level that should form the basis for long-term health – a fine outcome to aim at. If competitive sport becomes the required outcome (usually for the 'few' in our community) then a more 'Related' journey can be attempted. For those who have the interest, desire and commitment there can then be the 'Specific' part of the journey for them. The least we need to have is that the 'General' part of the journey is good enough, deep enough, wide enough, interesting enough and consistent enough for everyone to achieve physical and emotional well-being. This means that measurement / standards in body composition, cardio-respiratory efficiency, general movement-pattern efficiency (so as adults we can all sit and stand and reach and walk and run and bend and carry and climb and lift without muscular-skeletal problems) might be a useful part of the strategy.

The 'sports' stuff needs the same start to the journey, but we have capitulated to 'fast-tracking', 'quick-fixing', early specialisation, spells, potions, gadgets and gurus instead of the steady 'General' journey.

Enough rambling – I am hoping for the best that some of this is helpful (but expecting the worst 'cus I always start to ramble).

Joe's reply

WOW! So much to digest! But have to before I reply to Kelvin's post. That being said, my first thought that differentiates Kelvin's model from others: No physical literacy without physical competency.

My additional comment

Correct Joe – whether I am right or wrong I can't see foundations or fundamentals being achieved without appropriate competence. In recent times I have been discussing with decision-makers the point that “just because you taught it doesn't mean they learned it”. Far too often a person is progressed along the pathway, not because they have earned the right to by consolidating competence at the current level but because an external influence pushes them along e.g. the school semester is coming to an end so they are moved forward to new topics; the fixture list demands they move forward to more complex or intensive activities; they have a birthday which pushes them into a new class or category; selection for special squads or external examinations pushes them forward. Far too many are moved forward before they are truly competent and they carry limitations forward which are seldom eradicated. So – yes – competence determines progression.

Joe's major comments

OK I needed a good night's sleep before replying to Kelvin's post- so much in there!

KBG: Teach the foundation movements (Squat, Lunge, Pull, Push, Brace, Rotate, Hinge and Landing).

JP: This is something that ABSOLUTELY can be measured & give the student meaningful information. Here in Elizabeth, we have the typical Urban situation of crowded classrooms and large class sizes. We find the PCA-tweaked just a bit-is perfect for peer to peer assessment. It's done in several different ways. Some of the gyms have SmartBoards; some teachers enlarged the PCA rubrics, laminated them, and pasted them up on to walls; some share the rubrics with their students via the MS Teams app; and some simply print out the rubrics and share them with their students. Each student creates their own burst graph that is unique to them & create their own “envelope” of where they are on the continuum. The point is, if the PCA is executed successfully in our environment, it can work anywhere. Project-based learning at its best. And project-based learning means more peer to peer cooperation AND collaboration- which means less behavior problems.

KBG: Teach them in every plane, direction, speed, amplitude, complexity (including all stages of the force/time continuum).Teach them using the entire Explicit to Implicit learning continuum (Instruction to puzzles; individual to games and relays exposure)

JP: When I think of these points, what comes to mind is what Greg Thompson posted in our GAIN forum years ago. It was an upper extremity strength program based on what he was seeing in his students. But the difference in Greg's approach was that he didn't do one traditional exercise. He used different variations of “playful” pushing and pulling movements to get there. When I presented that idea to my teachers, they said things like, “why don't you just ask them to do “negatives” (lower themselves as slow as possible from the pushup position)? It's much simpler”. The way I explained it to them- You have quads, abs, triceps etc. But there are 650 muscles in the human body. Many of them, like the rotator cuff muscles, the obturators etc are the muscles that “connect the dots” and make graceful movement possible, and can't be trained by “traditional” strength training. They work to coordinate movement, and they like it when they are given puzzles.

KBG: Done correctly this plan of mechanical work will also contain the exposure to metabolic development

JP: Let me emphasize again to all- you are also preventing behavior issues in your gym. Trust me on that-we have a very high rate of ADHD students in our district. This type of training requires mindfulness, and keeps them on task. And your are preventing boredom for all. If your students are

bored, you are not stimulating the nervous system. You are just making them tired.

KBG: Now you have a Movement and Metabolic Vocabulary which, while it is being developed, can be used to support the learning of the skills of running, jumping, throwing, kicking, catching, striking and flotation.

JP: Kelvin a light bulb went off in my head. Locomotor skills are being mistaken for physical literacy. The danger in that? A physical literacy test that looks like “skip 5 meters. Kick a ball to a target. Throw a ball into a hoop- congratulations you are physically literate. Here’s your certificate.” So physical competency is a component of physical literacy, not a stand alone in itself.

KBG: Now you have the tools to visit the sports-specific actions and postures. You have earned the right to take on the demands of competitive games.

JP: Not just the skills to do competitive sports more, you have the tools to enjoy life more. Like Greg T says- teach them to move better, you won’t have to tell them to move more. Final thoughts- it is physical LITERACY. Not what you taught them, but what they learned about movement. There is a physical piece to that, yes. But-final thought here- maybe what we’ve neglected is the COGNITIVE piece?

Phew! Need a nap. And need to get Greg and Steve back to Elizabeth.

My latest reply

As with every discussion, more questions get asked than answers given. Immediately I saw Joe’s response it reminded me of other arguments that students and coaches have made in the courses I conduct. When I speak to some sports, I know that I am going to have a devil of a time trying to convince them to do things differently (more appropriately) and do different (more appropriate) things to improve their player development pathway. Many are stuck in a paradigm of sports-specific at all costs and they attack the idea of having to navigate a movement vocabulary first.

I now have empathy for them because when I look at the content of their education courses and look at the athlete pathway that their sport had determined then I realise that they just don’t know an alternative.

The same thing probably happened when I listed the broad outline of what I do e.g. movement vocabulary leads to / creates the building blocks for running, jumping, throwing, kicking, catching, striking, flotation (the locomotion, non-locomotion and manipulative skill set). This process is NOT LINEAR – you don’t have to get the movement vocabulary BEFORE you start the other movement adventures (although having some physical ability is a great help).

An illustration of this is what we have included in the Scottish Athletics Athletic Development pathway where we describe a session that might look something like this:

Background (context)

Somewhere in the U/6 to U/12 age group

A session with running as the main feature

A Running session with the main recurring technical components (technical theme) being:

Toes Up

Punch the feet into the floor

Aim Heel to Hamstring

Session Construction (70-80min)

To contain General, Related and Specific activities but with an emphasis on General development.



Warm-Up – appropriate activities for what is to come in the session

General Running Puzzles – Populated from toolbox (see diagram)

Event Specific activities – a closer look at the components of sprinting e.g. PAL (these elements can also be focused on in the previous General Running puzzle section)

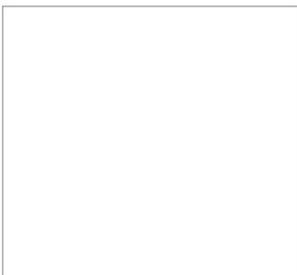
Foundation Movements – the 5in5 works well here alongside other activities in the toolbox

Applied – some competitive and / or games-based activities within which to apply what has been learned wherever possible.

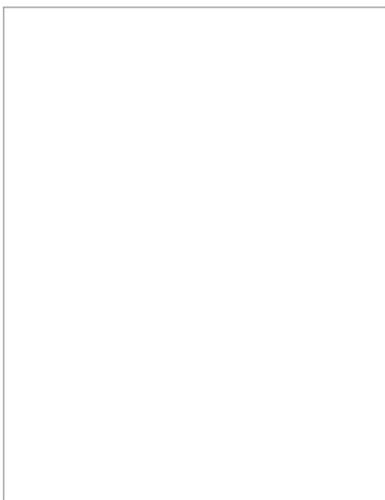
Note how the activities cycle through and repeat themselves in short periods of activity. For this age-group, who often have the attention-span of a gnat, it is wise to keep the challenges changing often to keep their attention. Note also that the technical theme never goes away

Populating the session

Toolbox Examples – populating the General Running Puzzle section



Add to these components the following variables



Work out the width and depth of variability (vocabulary) you have when you use both Toolboxes. From a simple forward running activity (with an emphasis on the 3 main technical components wherever possible) one can envisage an athlete progressing to - Galloping clockwise around a circle; Feet high off the ground; Hands Overhead; Carrying a broomstick. The journey from the first, simple forward running activity to this complex piece of locomotion allows the coach to use constraints-based learning (changing the puzzle); external focus; analogies and the obvious variability. It exposes the athlete to learning where all their body parts are in time and space; it builds up a vocabulary of movement answers to hundreds of

movement questions. This arsenal of ‘answers’ can then be used to enhance their long-term technical journey for the next decade.

Without taking much away from the sports-specific activities this session construction allows the General to Related to Specific journey to be created.

-or- you can teach them static high-knee drills; standing arm-action drills; how to do a crouch start and then time them over 50m then pick the 4 fastest and you have a relay team that could win the U/9 local championships and your work is done.

The above process shows that while the movement vocabulary is being developed there is plenty of opportunity to begin the other parts of the journey. Some things will need to be emphasised more than others at the start and this is based on what happens in front of you. If they can’t handle the forces required for the specific movements of, say, change of direction in a team game, then build their movement vocabulary to give them these tools. The key is to eradicate movement limitations that can lead to compensatory movements that can lead to injury or, at the least, lead to poor technical development.

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