British Journal of Teaching Physical Education 2001

The Concept of Physical Literacy

Margaret Whitehead PhD

De Montfort University Bedford

The concept of Physical Literacy has been used within the profession for some years, possibly as an alternative to the idea of being physically educated. In fact it was used in a UK Sports Councils flier in 1991. This stated *'Physical Education creates literacy in movement, which is as vital to every person as literacy in verbal expression itself'*.(1) However Physical Literacy per se has received little attention.

In relation to Physical Literacy it is intriguing to note that there have been indications recently, from certain groups in the profession, that the development of a concept such as this, could be useful. Questions are being asked about whether there is a core goal of the subject which is beyond, or fundamental to, specific proficiency in a number of different named activities. The concept of physical literacy could provide a pointer in defining a core. This article is a shortened version of a paper given at the I.M.Marsh Centenary Conference in June 2000. The paper was presented to open a debate on the concept of physical literacy. This remains the status of this article. As will be seen it raises a host of questions that will need to be addressed before a definitive description can be worked on.

In working to define the concept of physical literacy it needs to be made clear that this paper does not try to legitimise what is currently taking place in school under the name of physical education. The deliberations start from a clean sheet and it has to be accepted that the final proposals may not be comfortable to everyone.

My own interest in physical literacy arose out of research for my PhD (2), although before embarking on my investigations I had developed a strong commitment to the notion that we were not made up of two separate aspects 'body and mind'. As a physical educationist I perceived the person as a whole, albeit with different dimensions. There was nothing that 'happened' to any dimension that did not affect the whole person. From this perspective I do not have a body but I am my body. The notions of ‘body as object’ and 'body as machine' were alien to me and my perspective was as 'body as self'. I therefore became fascinated by the work of those philosophers for whom embodiment was a significant aspect of our humanness. These philosophers were existentialists and

phenomenologists.(3 & 4) Put very simply their views are, firstly that we are the result of all the interactions we have with our surroundings. We make ourselves, from day one, out of these interactions. Secondly, that we are by nature 'beings in the world'. This in a sense, follows from the first tenet. If we are the result of our interactions, that with which we interact (the world) is the material out of which we create ourselves.

So we are in the world, creating ourselves out of our interaction with everything in the world, via whatever human dimensions we have that can realise this interaction. The richer our interaction in breadth and depth, the more fully realised a human we shall be. One significant dimension with which we interact with the world is our body, our embodied dimension.. The world awakens capacities in us, as we discover aspects of the world. Swimming is a good example – without water we would not realise our capacity to swim.

Following from my own study there were questions that needed to be answered. For example - 'What is the range of physical capacities that would a) enable us to make the most of this unique dimension; b) enable us to interact with the world to awaken our huge wealth of capabilities and c) help us to become a richer person both in ourselves and in respect of that which we know about the world'?

The concept of Physical Literacy fits very comfortably into this scenario because for me literacy is not only just about being able to do, it is about being able to perceive intelligently and respond appropriately. Physical Literacy then must encompass more than physical skills, it must include an ability to read the environment and to respond effectively.

However the concept of Physical Literacy is not straightforward and there are a number of questions that need to be considered at the start of the debate.

Firstly **is the concept universal**, or is it culturally grounded? Should we be trying to describe a physically literate individual in UK, or anywhere in the world?

Secondly **is the concept age related?** Should we refer to an end state achieved by an adult – whatever that means – or do we need to create a concept that can be unpacked at different stages of life – infancy, childhood, adolescence, adulthood, old age?

Thirdly **where do the physically challenged fit in**– those with a physical and/or another disability?

And fourthly how **far should we include,** what could be called for short, **dexterity?** Should we confine ourselves to movement involving larger muscle groups – for want of a better description?

At this stage in the debate, it seems desirable to work towards creating a universal description, on the grounds that all humans, wherever they live, are embodied and interacting with the world. It also seems appropriate to consider an end state. This end state is, however, not one that can be attained and then forgotten. It is an end state that needs constant attention to be maintained. Just as in acquiring a foreign language, one needs to maintain one's fluency by regular use of the language, physical literacy cannot be attained and then forgotten.

The issue of the physically challenged is complex. At this stage it might be wise for the concept of physical literacy to focus on making the best use of the full range of what could generally be accepted as 'normal' embodied capacities, in our interaction with the world. It could be the case that a similar principle should be used for those with a different or restricted cluster of competencies i.e. making the best use of their capacities, although this opens up the scenario of having to create a notion of physical literacy for every individual to match their unique capacities.

And dexterity? If possible it seems desirable at this stage to avoid Physical Literacy including skills such as typing, knitting and carpentry. However should we include driving a car, gardening, house decoration, housework and similar movement tasks, in a concept of physical literacy? It seems that in coming to a final definition, we shall have to delimit our sphere of concern, albeit acknowledging that there can be no clear cut-off point.

So at this stage the paper is aiming for a universal concept, that is an end state relating our full human capacities, involving larger muscle groups.

Looking very broadly it could be suggested that the overarching characteristics of a physically literate individual are that the person moves with poise, economy and confidence in a wide variety of physically challenging situations. Furthermore the individual is perceptive in 'reading' all aspects of the physical environment, anticipating movement needs or possibilities and responding appropriately to these, with intelligence and imagination. Physical literacy is akin to notions identified by other writers as intelligent performance or intelligent action. If the statement above as acceptable it

follows that physical literacy is not purely a 'bodily' capacity. Physical Literacy requires a holistic engagement that encompasses physical capacities that are embedded in perception, experience, memory, anticipation and decision making.

Defining the concept needs careful analysis and this will be approached by looking at four issues, being - the embodied capacities that would seem to form an essential ground to the state; the range of environmental situations with which the individual should be able to interact; the range of personal and inter-personal situations in which the individual should be able to deploy their embodied dimension effectively; and the holistic capacities that are essential to achieving the state.

The embodied capacities that we need to interact effectively with the environment.

These are no strangers to us and must surely include capacities such as balance, co-ordination, flexibility, agility, control, precision, strength, power, endurance and the ability to move at different speeds – that is explosively, right through to sustaining a movement over a long period of time.

Each of these concepts will need to be defined, and it is likely that there are more, but at root they describe that which our embodied dimension is capable. The list defines and delimits the ways in which we can interact with the world. They set the parameters. They describe our potential. And it is true that without any one of these capacities our ability to interact with the world would be restricted.

These capacities afford us the opportunity to carry out a wide range of movement skills such as walking, running, jumping, climbing, turning, propelling ourselves through water, striking, catching and throwing.

The range of environmental situations with which an individual should be able to interact.

Consideration of this issue produces a fascinating dichotomy and challenges the intention to make the concept culturally neutral.

Firstly there are given aspects of the natural world environment. These would include phenomenon such as water, different surfaces, hills and mountains and all manner of situations in nature ranging from moving in different weather conditions such as wind, to climbing trees.

And secondly there are man-made environments. Some of these environments have been created for comfort and efficiency but need an effective movement response to realise their potential. This list could include using cars, household gadgets and gardening instruments.

Other man made environments could be seen to have been created with the sole intention of utilising, extending and challenging our embodied capacities. Some are based on natural environmental situations such as jumping events and sailing. Others have moved on from the natural environment somewhat e.g.trampolining and gymnastics. Each of these man-made environments has been created to be in tune with our embodied potential and would not have been created unless we had the capacity to engage with them. It would seem that they have been created to some extent as ends in themselves, perhaps with the tacit knowledge that in interacting with these environments, we as humans realise and refine our potential in ways that are rewarding, satisfying and help us to develop our unique individual identity. World wide these man-made situations draw on a common bank of human capacities but are clearly culturally grounded.

In identifying the two strands of environments we have situated ourselves in the developed world in the 21st century and moved away from the aim to be culturally neutral. It could be that the notion of physical literacy we are moving towards, is only pertinent to our world today, and so it could be that those with a significantly different life-style are either physically illiterate, on these terms, or need to have a different concept of physical literacy to which to aspire.

Accepting that we are now firmly in the 21st century in the developed world, can we answer the question '**What categories of situations exist in our world with which we, as physically literate individuals, should be able to interact?**'

The first category of situations should surely be those that are **given in the natural world**. To engage fully with the world we should be able to interact effectively with such phenomena as gravity, gradient, fixed and moving objects and water. This would seem to involve for example, walking, running, jumping, climbing, swinging, turning and propelling oneself through water.

The second category **might** be located in the man-made situations. These could demand the application of the first category engagements to specific features such as using a ladder or a household machine/instrument or driving a car.

This second category **might also** include engagement in those man made situations created simply to challenge and celebrate our embodied capacities. These situations **might** demand specific types of running, jumping, propelling oneself through water as well as the manipulation of implements and missiles. A development of this second category, **might be** those man-made situations that involve the interplay between ourself and other individuals, together interacting in and with a specific aspect of the environment.

On reflection, we could perhaps rescue our aspirations to formulate a universal concept by linking situations and environments to embodied potential. Perhaps we should be looking to identify a cluster of natural and man-made environments that challenge all aspects of our embodied capability. Culturally the contexts or environments could be different, but the overall embodied, interactive challenge would be the same.

The range of personal and inter-personal situations in which the individual should be able to deploy their embodied dimension effectively.

It seems important that a physically literate individual should also be able to deploy his/her embodied dimension to achieve intentions that focus on self expression. We are manifest in the world in bodily form and through our embodiment we demonstrate/ display/communicate many aspects of our personality. This aspect of physical literacy could relate to situations in which self presentation and non-verbal communication are central. These situations could also extend to those related to art forms such as dance and drama.

This capacity is not so obviously rooted in interaction in the environment - apart from having to respect gravity. In a sense this aspect of physical literacy makes a bridge between the environmental interactions and the holistic considerations of the next section. It could be that it can be subsumed in one of these. However in considering the ways we can and do use our embodied dimension, this area needs to examined.

The holistic capacities essential to achieving physical literacy

The physically literate individual not only has the embodied capabilities mentioned in the first list and has mastered the interaction with different environments referred to above, but in addition has the ability the ‘read’ the demands of the situation

What do is meant by the word 'read'? It is useful to start by considering what we mean by 'reading' in relation to the written word. Roughly put we might say that an ability to read means that an individual is able to give meaning to the written word and furthermore is able to relate separate items together, such as words, sentences and paragraphs, to make a coherent and again meaningful whole. The reader is able to engage with the material that is read as is resonates with existing knowledge and experience. To do this the reader has to draw on a range of cognitive skills. New information connects with existing understanding and enriches the experience and knowledge base of the individual. In addition to being able to engage meaningfully with the written word the reader is able to respond verbally or in writing, to articulate, develop or contest what has been read. There is a sense that in reading, new knowledge is created. This pertains both to the reader who has added to his/her store of understanding, and to the world at large, because the interaction of the reader with the material has brought into being a unique and new perspective on the passage read.

If we translate this scenario into the context of physical literacy – the following picture emerges. The physically literate individual, on perceiving the environment, through a range of senses, appreciates, via experience, the relevant components of the display e.g. shape size, weight, surface, speed, movement of others. These attributes of the environment are immediately understood as meaningful, in that they resonate with embodied capabilities, and the individual will know at once how to move, to relate effectively with the combined aspects of the environment in question. This knowledge of how to relate is the result of previous experience.

In a situation where the display is comparatively novel the mover will draw on a range of previous experiences, to make movement sense of the environment. In actually moving in relation to this novel environment a new blend of application of movement skills is brought into being. In a manner similar to reading the written word, new knowledge is created both for the mover and for others, in that the mover has created a new and unique response - novel interaction with the world.

In discussing this holistic aspect of the concept it needs to be asked whether physical literacy can be effected intuitively and habitually. We perhaps have to unpack movement and learning new movement skills to some extent. A movement response is learnt in a new environment and this then becomes part of our repertoire of movement responses. Once established the response can be used without apparent conscious attention. However in the act of learning a new response there is a conscious awareness of bringing a new set of co-ordinated actions into being. All these learned responses create a bank of

movement responses that can be drawn on as needed. The physically literate individual has the capacity to draw on this bank to 'solve the problem' of interacting with a new environment. Moreover this individual learns from any new interaction so adding to the bank of responses.

So, to recap this section, a physically literate individual is a mover with a rich bank of established movement responses acquired through interacting with a wide range of challenging environments. The mover exhibits intelligent movement interaction with the world through perceptive reading of the environment, astute application of existing responses, effected alongside newly created responses where needed. The physically literate individual is adept at appreciating similarities between environments as well as recognising unique features. The mover demonstrates acuity in practical reasoning that combines sub-conscious and conscious levels of motor control. The mover is acutely aware of the effectiveness of responses and readily assesses levels of success. The physically literate individual learns from all interactions, ceaselessly modifying and refining his/her response bank.

So far in this paper any reference to language has been omitted. Not the language of movement but speech or verbal articulacy. In a sense what has been said so far could be interpreted as occurring at a non-verbal level. How far should a physically literate individual be able to verbalise the planning and evaluation of movement actions or responses – as indicated in the current and forthcoming NCPE? Or is verbalisation more a tool in becoming physically literate – for the pupil and the teacher? This is certainly a question to be answered. As an extension to this how far does the academic study of disciplines that relate to movement and movement forms – as seen in GCSE and A Level contribute to physical literacy? Another question.

There is absolutely no doubt of the huge potential there is for enhancing quality of life via the development and deployment of physical literacy. As a capacity integral to the individual and influencing much of life as we know it, the achievement and exercise of physical literacy plays a very significant part in the development of self realisation, self awareness, self-confidence and positive self esteem. The task of convincing others is in no way straight forward, as it is by nature based on a philosophical point of view.

However if a definition of physical literacy can help us in our cause, this is a task we must undertake. We have much work to do. I would be very pleased to be in touch with others who share my conviction that a definition of physical literacy is needed to help us

to argue for our place in a broad and balanced curriculum that acknowledges the many dimensions and aspects of our human nature.

Questions arising from this paper that warrant further debate could include

1. Is Physical Literacy a universal concept?
2. Is Physical Literacy an end state?
3. How can the concept relate to the physically challenged and those with other disabilities?
4. What are the embodied capacities that are essential to the concept?
5. Should the concept be confined to whole body action or should it include e.g. dexterity?
6. Can we identify the range of natural and man-made environments in which we need to interact effectively?
7. Should these environments be those which, collectively, challenge all the different aspects of our embodied capabilities?
8. What do we mean by 'effectively' in respect of interaction with the environment?
9. Is there a need for the identification of embodied attributes related to self expression. Does this include non-verbal communication?
10. How can we best describe the holistic capacities essential to Physical Literacy?
11. How far should a Physically Literate individual be able to verbalise/articulate the components of this attribute?
12. Should a physically literate individual adopt behaviours conducive with personal health promotion?
13. Does study at GCSE and AL contribute to Physical Literacy?
14. How does the concept of Physical Literacy affect what is and might be the practice of Physical Education?

References/bibliography.

1. . U.K. Sports Council (1991) The Case for Sport (Publicity leaflet)

2. Whitehead, M.E. Unpublished PhD thesis - A Study of the views of Sartre and Merleau-Ponty relating to embodiment, and a consideration of the implications of these views for the justification and practice of physical education. 1987.

3. Sartre, J-P. (1943) Being and Nothingness translated by Hazel Barnes. Methuen 1957

4. Merleau-Ponty, M. (1962) The Primacy of Perception translated by Arleen Dallery NWUniversity Press 1964

mw 15:9:00