

PHYSICALLY EDUCATED

Developing children's health and wellbeing through learning in the physical dimension

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LEARNING OBJECTIVES

In this chapter, we will:

- Develop students' and educators' understanding of human movement theory and how it applies in early years practice.
- Assist students and educators to identify that quality physical education (QPE) enhances children's health and wellbeing.
- Develop students' understanding that QPE is a planned, progressive and inclusive learning experience.
- Recommend that all children be provided with opportunities to master fundamental movement skills (FMS) before seven years of age.
- Explore how educators require expertise in the fundamentals of movement and the inclusive socio-cultural approach.
- Discuss the significance of the physical dimension within children's learning, and how it offers powerful and meaningful connections across all learning and development areas.

INTRODUCTION

The purpose of this chapter is to connect human movement theory with practice. Thus, the chapter answers the questions: What does human movement theory look like in practice? How can it be optimised for all children? Why is it vital for the advancement of health and wellbeing in childhood?

The physical dimension is significant within children's learning because it offers powerful and meaningful connections across all learning and development areas (Lynch, 2019). The socio-cultural perspective suggests that the curriculum ought to be connected to the child's world and everyday interests (Arthur et al., 2020). Since children have a natural play structure, learning through movement heightens their interest.

PAUSE AND REFLECT 4.1

Thinking about your own experiences

Drawing from your experiences, how is the physical dimension significant within children's learning? How have you seen play and physical movement used for learning across development areas? How do children learn mathematical concepts through play and movement?

Play sits within the physical dimension, ‘where children are learning through their interactions, as well as adopting and working through the rules and values of their own cultural group’ (Arthur et al., 2015, pp. 99–100). The socio-cultural benefits of play enable ‘the development of imagination and intelligence, language, social skills, and perceptual-motor abilities in infants and young children’ (Frost, 1992, p. 48). These benefits are significant in achieving the vision of *Belonging, Being, Becoming: The Early Years Learning Framework for Australia (V2.0)* (EYLF) (Australian Government Department of Education [AGDE], 2022), where ‘all children engage in learning that creates confident and creative individuals and successful lifelong learners’ (p. 6). Furthermore, the socio-cultural benefits of play are represented in the Australian Curriculum 9.0 (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2023) by the two Health and Physical Education strands:

- Personal, Social and Community Health
- Movement and Physical Activity.

Hence, this chapter adopts the same goal as Williams (2014): ‘to highlight the importance of early childhood educators integrating bio-physical and socio-cultural understandings’ (p. 62). This is an important goal, affirmed by Callcott et al. (2015): ‘It is now evident that practice and encouragement as well as correct and quality instruction are necessary for children to become proficient in fundamental movement skills’ (p. 32).

To enable a deeper understanding of the advancement of health and wellbeing in childhood through ‘belonging, being and becoming’ physically educated, two major underpinning themes are investigated: approaching QPE, and human movement and motor skills in childhood.

APPROACHING QPE

QUALITY PHYSICAL EDUCATION

QPE needs to be provided for all children. Therefore, all educators must understand how to provide inclusive practices in which correct movements can be mastered. QPE is defined by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2015) as:

the planned, progressive, inclusive learning experience that forms part of the curriculum in early years, primary and secondary education. In this respect, QPE acts as the foundation for a lifelong engagement in physical activity and sport. The learning experience offered to children and young people through physical education lessons should be developmentally appropriate to help them acquire the psychomotor skills, cognitive understanding, and social and emotional skills they need to lead a physically active life. (p. 9)

HEALTH AND WELLBEING

Implementing QPE increases the likelihood of children experiencing positive health and wellbeing outcomes. One simple definition of wellbeing is ‘a state of feeling good about ourselves and the way our lives are going – feeling that we belong and are valued’ (Lynch, 2022b, p. 1; see also Lynch, 2022a). The Victorian Early Years Learning and Development Framework defines wellbeing as ‘having good

mental and physical health, including attachment, positive affect and self-regulation. This means being able to manage emotions productively and build resilience and persistence, being adaptable and confident, and experiencing feelings of satisfaction and happiness' (Victorian Curriculum and Assessment Authority [VCAA], 2016, p. 20). Research provides evidence that regular **physical activity** promotes mental and social wellbeing (Commonwealth of Australia, 2014; Lynch, 2015a; 2019; 2022a; 2022b; Parkinson, 2015; Public Health England, 2021; Richards & May, 2016; Salmon et al., 2011). This connection was weakened in schools by the COVID-19 pandemic (Lynch, 2022a; 2022b). Subsequently, curriculum change involved the introduction of 'UK Government statutory guidance for Physical Health and Mental Wellbeing in primary and secondary schools' (Lynch, 2022a, p. 5) and its significance was confirmed in Australia, where it is represented in the Australian Curriculum 9.0 by the focus area Mental Health and Wellbeing (ACARA, 2023).

For social, emotional, intellectual and health benefits, it is recommended that toddlers and pre-schoolers have at least three hours of physical activity throughout the day, and that children aged five to 17 years have 60 minutes a day of moderate-to-vigorous intensity physical activity (Australian Government Department of Health and Aged Care, 2022).

CASE STUDY 4.1

EXAMPLE OF BEST PRACTICE

In Primary School A, educators and parents believe they have a QPE program that enables optimal development of child wellbeing. The school uses four elements of QPE (Lynch, 2019, p. 11):

1. All classes have weekly Physical Education (PE) lessons with a specialist PE teacher. These lessons are for 45 minutes, and the specialist PE teacher communicates with the classroom teacher, who regularly follows up the developmentally appropriate physical movements during lessons that week.
2. Whole-child development is the focus at all times: social, emotional and spiritual wellbeing; health and physical wellbeing.
3. The entire school implements a **health and physical education** curriculum, using the socio-cultural (inclusive) approach. Through strong communication and leadership, the specialist PE teacher delivers the PE lessons (physical dimension) while the classroom teacher takes responsibility for health education lessons, often connecting with other curriculum areas. The school has a Whole School Curriculum Program (WSCP) for Health Education and Physical Education.
4. The school has basic essential equipment and facilities. To extend experiences for the children, it collaborates with nearby sporting clubs and schools (strength-based partnerships).

Compare this school with a school where you have done a placement or one which you attended. Is this how you have experienced the implementation of the Australian Curriculum: Health and Physical Education (AC: HPE)? What was similar and what was different?

The marriage of human movement and the **socio-cultural approach** promotes QPE, which has driven the past two reforms to the Australian Curriculum (1994 and 2013) for the learning area of Health and Physical Education (HPE) (Lynch, 2014; 2016b). Thus, the AC: HPE offers a national policy that is balanced in theory and pedagogy, one that is inclusive, promotes social justice and

Physical activity:

anything that gets your body moving, makes you breathe faster and speeds up your heart rate. Physical activity can be at different intensities, and forms include incidental activity exercise sport and muscle strengthening activity (Australian Government Department of Health and Aged Care, 2022).

Health and physical education:

the unique description of what is also called 'Physical Education' or 'Personal Development and PE', or even 'Gym class', around the world. The AC: HPE recognises that competence in education in movement – educating the physical – should occur in a health-promoting context, with integrated health education learning outcomes. AC: HPE has an educative focus, which includes but is also much more than physical activity.

Socio-cultural approach:

an inclusive approach to learning that considers all social and cultural environments and influences affecting children. Social and cultural backgrounds are also considered in providing socially just learning experiences.



Figure 4.1 A child's personal, social and emotional development is interconnected with their physical development

assists students to make well-judged decisions in relation to good health and wellbeing (Queensland School Curriculum Council [QSCC], 1999).

The connections between the physical dimension and wellbeing are evident in the Australian Curriculum 9.0 where all students study Health and Physical Education from Foundation to Year 10. The two statutory strands are 'interrelated and inform and support each other' (ACARA, 2023) and both strands consist of three sub-strands:

- Personal, Social and Community Health
 - Identities and change
 - Interacting with others
 - Making healthy and safe choices
- Movement and Physical Activity
 - Moving our bodies
 - Making active choices
 - Learning through movement.

Hence, social and emotional learning (SEL) has a strong presence (see Figure 4.1; see also Chapter 15).

PAUSE AND REFLECT 4.2

Thinking about your own experiences

Why can't HPE be the only curriculum area responsible for wellbeing development? How would this limit learning opportunities?

Robbins et al. (2011) established seven strongly connected dimensions of wellness: physical, intellectual, emotional, social, spiritual, environmental and occupational. A study exploring the dimension of spirituality in the HPE learning area across three Queensland case-study schools (Lynch, 2015b) reports that regular, quality inclusive HPE lessons increased children's potential for spiritual experiences. Hence, curriculum frameworks and research studies illustrate the power of an inclusive, socio-cultural approach.

While the HPE learning area recognises and advocates for the development of all health dimensions, the core of HPE – as the nomenclature states – is the 'physical' dimension. For this reason,

health and wellbeing associated with being physically educated is the key wellbeing development responsibility of HPE. An example of where this occurs is in Hellison's (2011) Teaching Personal and Social Responsibility (TPSR) model, which 'offers a primary emphasis on the often under-represented affective domain without devaluing or limiting the physical activity taught in physical education' (Walsh, 2016, p. 8). The model consists of five levels: (1) respecting the rights and feelings of others; (2) self-motivation; (3) self-direction; (4) leadership; and (5) transfer outside of physical education.

SOCIO-CULTURAL APPROACH: ADDRESSING HIDDEN MESSAGES

The introduction of the socio-cultural perspective recognises that children are influenced by the different physical, social, cultural, political, economic and environmental forces affecting their wellbeing (QSCC, 1999). Therefore, this approach offers a holistic learning approach for physical education. Throughout history, physical education has often focused on the body as an object, in contrast to the 'whole' child. This occurs 'in a society when man [and woman] has gained the capacity of looking at his [or her] own body as if it were a thing' (Broekhoff, 1972, p. 8). Critically examining literature and taken-for-granted assumptions within the physical education field from cultural and historical perspectives illustrates the pertinence of the socio-cultural approach.

Discourses that have influenced the 'body as an object' philosophy include military, scientific, health and sport. They portray ideologies that include sexism, elitism, healthism, individualism and mesomorphism (Colquhoun, 1991; 1992; Hickey, 1995; Kirk, 1992; Kirk & Twigg, 1993; Scraton, 1990; Tinning, 1990; Tinning & Fitzclarence, 1992; Tinning et al., 1993). Such ideologies often pass on false messages to the child, often unintentionally, or the educator may be unaware of their existence. Ideologies are not recorded in curriculum documents; rather, they are traits taught and learnt through various media within society, in what is termed the '**hidden curriculum**'.

Military discourse involves physical education through drilling and exercising. This military-style training existed in Australian schools from 1911 to 1929 and was the first and only national system of physical training. Kirk and Spiller (1991) describe this period as a time of *schooling* rather than education, as 'physical education was deeply implicated in the project of schooling the docile body, in knowing it and shaping it to meet particular circumstances and fulfil particular social and political projects' (p. 108).

Science has had a major influence on physical education through technology and medicalisation; the scientific discourse having particular relevance to the bio-physical foundations of human movement. The influence of science on education began after the launch of *Sputnik 1* on 4 October 1957. It was thought at the time that schools were not producing enough scientists, so financial support was directed towards this goal. Science education continues to be a concern, but in the 1950s physical education curricula became 'technocratically rationalised' (Kirk, 1988) and the 'new look' physical

Discourses: socially constructed and reasoned messages.

Hidden curriculum: when children acquire both unintentionally and intentionally delivered messages as a consequence of being in the school environment. Often, educators are unaware of some of these messages because they are culturally accepted and are not recorded in curriculum materials.

Ideology: a set of beliefs, values and commitments that underpin policies and theories.

education curriculum focused on biomechanics, exercise physiology, sports medicine, the psychology of sport and the history of sport (Kirk et al., 1986).

Health as an **ideology** has influenced both society and physical education. ‘Healthism’ is described by Crawford (1980) as ‘a belief that health can be unproblematically achieved through individual effort and discipline directed mainly at regulating the size and shape of the body’ (p. 366). The TV program *The Biggest Loser* is a prime example of healthism, whereby the body is associated with morally disciplined behaviour, and people experience guilt if they are considered undisciplined.

The sporting discourse has developed beliefs about physical education and sport that are not necessarily true. The National Curriculum in England’s Physical Education Programme states the purpose of study for the subject in Key stages 1 (5–7 years) and 2 (8–11 years) as being:

A high-quality physical education curriculum [that] inspires all pupils to succeed and excel in competitive sport and other physically demanding activities. It should provide opportunities for pupils to become physically confident in a way which supports their health and fitness. Opportunities to compete in sport and other activities build character and help to embed values such as fairness and respect. (Department for Education [DfE], 2022, p. 1)

PAUSE AND REFLECT 4.3

Your experiences of physical education and sport

What assumptions do educators make about children and their physical growth and development? Reflecting on your experiences of physical education and sport, can all children excel in competitive sport? Will playing sport build character in all children? Are fairness and respect outcomes of all sporting experiences?



Figure 4.2 Competition or collaboration in quality physical education and sport?

It is argued by some that the assumptions made by the National Curriculum in England's Physical Education Programme are not possible, and they suggest that 'competing drags us down, devastates us psychologically, poisons our relationships and interferes with our performance' (Kohn, 1992, p. 114). Hickey (1995) shares other assumptions and contradictions about sport:

- By being involved in sport, people naturally develop positive attitudes about healthy lifestyle.
- Friendship, teamwork, sharing and cooperation are incontestable manifestations of involvements in physical education and sport.
- If you are prepared to work hard and make the necessary sacrifices, you can achieve what you want to in sport and physical education.
- Boys and girls receive equal opportunity and recognition in their involvement in sport and physical education.
- Children get most of their understandings and interpretations about physical education and sport through the school curriculum (p. 5).

As evidenced by the literature, over the years 'belonging, being and becoming' physically educated has not always been achieved. In the past, it has been argued that 'where physical education is poorly or insensitively taught it is more likely to have a negative influence on learners than a positive one' (Tinning et al., 2001, p. 181).

PAUSE AND REFLECT 4.4

Optimising positive experiences

Reflecting on your experience of physical education and sport, have there been times where you have had a negative experience? What can educators do to optimise positive experiences for their students? Discuss whether QPE is for an individual's betterment or for the benefit of a community.

The Australian HPE curriculum adopts the socio-cultural approach. It identifies that being physically educated has health and wellbeing developmental outcomes and benefits for children. It also suggests that wellbeing benefits are optimised when existing cultural messages, associated with the hidden curriculum, are addressed:

The Health and Physical Education curriculum will draw on its multi-disciplinary base with students learning to question the social, cultural and political factors that influence health and wellbeing. In doing so students will explore matters such as inclusiveness, power inequalities, taken-for-granted assumptions, diversity and social justice, and develop strategies to improve their own and others' health and wellbeing. (ACARA, 2012, p. 5)

As the literature implies, it is essential for educators to adopt a holistic approach towards physical education. Adopting the socio-cultural approach has important implications, 'because its attention to social and cultural influences on health put it in opposition to notions which locate responsibility for health almost solely in the individual and their decisions' (Cliff et al., 2009, p. 165). It is proposed that the marriage of human movement and the socio-cultural approach enables quality physical education.

CASE STUDY 4.2 PRACTICAL EXAMPLE OF IMPLEMENTATION PROBLEMS

It is suggested in research that health education in UK schools is guided by obesity discourses that offer a resurgence of individualistic notions of health – for example, that children in the early years of primary schools in England are being informed that they need to exercise or else they will get fat. Some children in Reception class (4–5 years of age) in state schools in the south-east of England have taken home a letter from the school stating that they are overweight. This is because ‘[c]hildren are measured and weighed for their body mass index (BMI) in Reception class and in Year 6, under the government’s National Child Measurement Programme’ (Ford, 2018). Whether intentional or not, viewing the body as an object to be trained places pressure on children, parents and school communities, often at the expense of enjoying movement.

Are you aware of other examples where the body is viewed as an object in schools?

HUMAN MOVEMENT AND MOTOR SKILLS IN CHILDHOOD

MOTOR CONTROL

Williams (2014) explains that: ‘Motor control is a field of natural scientific research that attempts to understand the processes whereby movement is controlled, coordinated and learned through the integrated operation of the nervous, skeletal and muscular systems’ (p. 66). These movements can be divided into two categories: reflexes and skills (motor skills).

Motor skills ‘can be defined as goal-directed, improvable actions that require movement of all or part of the body in order to be performed successfully’ (Williams, 2014, p. 63). While a diverse range of movements fit this definition, Williams gives the early years examples of writing one’s name, tying shoelaces and catching a ball. Of these three movements, catching a ball is synonymous with physical education, in particular, fundamental motor skills (FMS).

FMS forms the building blocks to more complex human movements. The AC: HPE shares that FMS ‘provide[s] the foundation for human movement and competent and confident participation in a range of physical activities’ (ACARA, 2023). FMS can be categorised as locomotor skills, non-locomotor skills and manipulative skills (object control). Locomotor and non-locomotor skills include running, jumping, hopping, skipping, leaping, landing, galloping, rolling, sliding, stopping, twisting, turning, swinging, dodging, walking, balancing, jogging, floating and moving the body through water (ACARA, 2023; Australian Sports Commission, 1997). Manipulative skills include ball control (bouncing and catching), throwing, tracking or trapping, kicking and striking (ACARA, 2023; Australian Sports Commission, 1997).

FMS builds a foundation for movements, often relating to games and sports, but, more importantly, also forms the foundation of movements that assist with life skills. Closely related to the child’s life-skill movements, and sitting alongside FMS, are gymnastics movements referred to as ‘dominant movement patterns’ (DMP). The building blocks of gymnastics are synonymous with movements used on adventure playground equipment, such as monkey bars, swings and slides; they include landings, locomotions, swings, statics, springs and rotations (Australian Council for Health,

Physical Education and Recreation [ACHPER], 1998). It is argued that gymnastics sits at the core of being physically educated (Lynch, 2016b). Because many parents value gymnastics, before-school and afterschool clubs for children are popular, but this is an area of the curriculum that is often limited in schools.

Ideally, FMS (and DMP) should be mastered as early as possible. This is supported by the AC: HPE, where FMS is listed as a focus area to be taught from Foundation to Year 6. One of the five aims listed for the HPE curriculum is to develop the knowledge, understanding and skills to enable students to ‘acquire, apply and evaluate movement skills, concepts and strategies to respond confidently, competently and creatively in a variety of physical activity contexts and settings’ (ACARA, 2023). Similarly, the National Curriculum in England for Physical Education states in Key stage 1 that ‘pupils should develop fundamental movement skills’ and specifically ‘master basic movements including running, jumping, throwing and catching, as well as developing balance, agility and co-ordination, and begin to apply these in a range of activities’ (DfE, 2022, p. 2).

SPOTLIGHT 4.1

Dominant movement patterns in the playground

Reflecting on children’s activities in an adventure playground, all rides, climbing frames and activities involve landing, locomotions, swings, statics (non-movement such as balance), springs (leaps and jumps) and rotations. Activities that may first appear as children having fun are essential for children’s physical development.

Research suggests that the best time for children to learn and refine their motor skills is in the pre-Foundation year and early primary school years (Branta et al., 1984; Commonwealth of Australia, 1992; Espenschade & Eckert, 1980; Lynch, 2011; 2014). During this early developmental phase, children have a natural play structure and more time to focus on developing their motor skills. Another advantage relating directly to the socio-cultural approach is the early detection of motor difficulties so that subsequent intervention programs can reduce many physical and related emotional problems (Arnheim & Sinclair, 1979; Commonwealth of Australia, 1992; Johnson & Rubinson, 1983; Lynch, 2013a; Seefeldt, 1975; Smoll, 1974).

ACQUISITION OF MOTOR SKILLS MODEL

Williams (2014) refers to ‘motor control’ as ‘the processes by which motor skills are performed’ (p. 66) and identifies the use of models, metaphors and analogies to assist with this process. One model, described by Fitts and Posner (1967), is the ‘acquisition of motor skills’. The first stage of this model is the Cognitive Phase, in which the learner receives and uses information on how the skill is to be performed – for example, when a driving instructor explains to a novice the various apparatus used for driving a car. The learner cautiously proceeds to drive the car, often with obvious errors such as ‘kangaroo jumps’ or ‘bunny hops’ in a manual vehicle. The second stage is the Associative Phase, in which the learner refines the

mechanics of the skill through practice, using feedback from the driving instructor, their own intrinsic feedback and their sense of proprioception. Errors are still common at this stage.

The third stage described by Fitts and Posner (1967) is the Autonomous Phase, in which the learner can perform the skill automatically – that is, without having to think about the movement and just doing it when they choose to. In the example of learning to drive a car, this happens when the driver finds that they no longer have to think about the process of each action they are making. The driver in this phase may even be tempted to combine motor skills while driving the car, such as adjusting the radio. The acquisition of motor skills model relates to all motor skills a child is introduced to, including riding a bike, flutter-kicking in swimming and dribbling a basketball.

PAUSE AND REFLECT 4.5

Thinking about your own experiences

Reflect on learning to drive a car or ride a bike. Can you identify the cognitive, associative and autonomous phases?

The analogy of learning to drive a car can be transferred to represent the various movement progressions throughout life – from the baby rolling to sitting up, crawling to ‘bear walking’, standing with support to standing without support, and taking their first steps. Likewise, children learning the various FMS in the early years of school can often be identified as moving through one of the three stages.

PAUSE AND REFLECT 4.6

Children’s movement and development

Reflecting on children learning particular movements, can you identify times when a child has been in each of the three phases of acquiring motor skills? What was the movement and why would you identify the child as being in that particular phase?

When associating the acquisition of motor skills model to children’s learning, the ideal is to have children performing motor skills automatically before placing them in more physically demanding situations, such as playing fun games before high-pressure matches during physical education. If children are able to perform the necessary skills during a gaming situation, without having to apply the thinking involved in the first two stages of Fitts and Posner’s model, they are then able to focus on other aspects of the game, such as strategies.

Motor development (see Figure 4.3) and national curricula indicate that many children will be ready to be placed in high-pressure games from the age of seven. While some children will be ready before that age, in diverse classes with children from various physical experiences and socio-cultural backgrounds, the reality is that often children in upper primary schools may still be in the first or

second stage of the acquisition of skills model for FMS used in particular games or modified sports. Research indicates that many children have limited FMS at the beginning of secondary school (Barnett et al., 2013). This is another socio-cultural aspect of physical education of which educators need to be mindful, because it is not inclusive practice to play a game or modified sport when not all children have had opportunities to develop the skills required. Such practices in schools need to be critically examined, since the children who have had prior experiences are often favoured over those who have not.

PAUSE AND REFLECT 4.7

Teaching a PE class

In a Year 5 class of 27 children, 18 children play basketball regularly for a club and have mastered all the necessary motor skills and strategies for this sport. How would you inclusively implement the skills of dribbling and passing with this class? Can the basketball players be extended while the other nine children are offered opportunities to develop these skills?

Educators are, therefore, challenged to be creative when implementing physical education by adopting a socio-cultural approach. At all times, the aim should be to maintain inclusivity by catering for the diverse needs of the class. This is easier said than done and is the greatest contemporary challenge for physical educators. The ability to implement strategies that cater for all needs, while enabling enjoyment, engagement and challenges, is evidence of an educator's expertise as a QPE.

As the National Curriculum of England for Physical Education 'Purpose of study' accentuates, sport sits within the PE curriculum. There is a misconception at times that PE is only sport. This becomes confusing for educators in the early years, when children's motor control skills are not developmentally ready to combine a number of motor skills with game rules and strategies (see Figure 4.3). Using the analogy of learning to read, throwing a child into a complex game is like introducing early years children to phonics using a novel. It is not developmentally appropriate.

The National Curriculum of England identifies this issue, but also recognises that there are simple games that do play a vital role in children's progression in becoming physically competent and confident in the early years. The curriculum policy states that in Key stage 1, children 'should be taught to: participate in team games, developing simple tactics for attacking and defending' (DfE, 2022, p. 2). The AC: HPE also espouses this essential motor development understanding for QPE. From Foundation stage through to Year 4, the focus area 'Active play and minor games' is addressed within the curriculum. On the other hand, the focus area 'Games and sports' is only recommended for Year 3 upwards (ACARA, 2023), after which time children have ideally mastered FMS.

Hence, embedded in QPE are quality games that include simple, developmentally appropriate games in the early years, requiring limited FMS and rules (Arthur et al., 2020). Simple games include hopscotch, tiggy/chasey, 'What's the time Mr Wolf?' and 'stuck in the mud', as well as others that the children may create themselves. These simple games play an important developmental role because they lead to more complex games in which variables such as space, objects, number of participants, number of games, time and speed are introduced through supplementary rules. Such rules increase

the challenge for participants and the FMS required. Four guidelines are identified for implementing quality games, including both simple and more complex games:

1. Safety for all players.
2. Inclusivity – all players are able to participate. This involves having the skill level to participate safely and at an enjoyable level.
3. Engagement – players’ participation is optimised. Waiting time is eliminated or minimal.
4. Enjoyment is prioritised (Lynch, 2013b, p. 19).

SPOTLIGHT 4.2

Traditional games

Many traditional games played at school, such as British bulldog, brandy and dodge ball, are associated with being inappropriate because they are of poor quality and choice. However, they can often have rules introduced to enhance the guidelines above (see, for example, www.timothylyncheducation.com).

MOTOR DEVELOPMENT

If educators are to use models, metaphors and analogies to enhance their understanding and the understanding of the children, then motor development is important. This is ‘the specialised area of study within the sub-discipline of motor control that deals with the description and explanation of these changes from the beginning to the end of life’ (Williams, 2014, p. 68). The progression through stages of motor development illustrates the difficulties that children confront when opportunities to master FMS are not provided – see Figure 4.3.

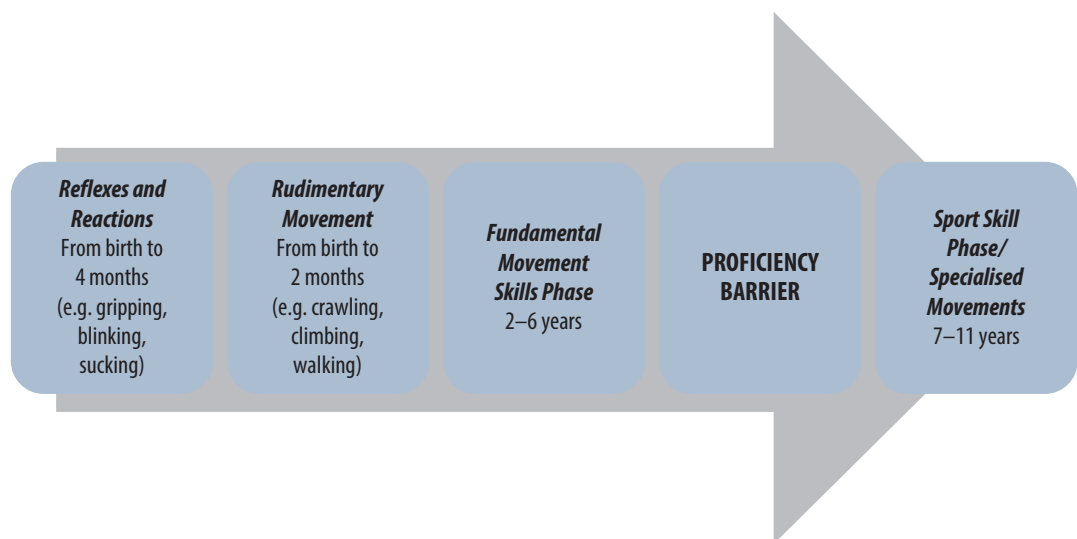


Figure 4.3 Skill refinement leading to lifelong physical activities

Source: Lynch (2016b), based on Callcott et al. (2015), Gallahue and Ozmun (2006), Seefeldt et al. (1972) and Thomas (1984).

The proficiency barrier generally occurs around Year 3 at school (7–8 years of age) and culminates with myelination, which is the production of the myelin sheath in the central nervous system. Myelination enables smooth, coordinated and subsequently increased complexity in children's movement skills and it 'permits the transmission of nerve impulses and is not complete at birth' (Gallahue & Donnelly, 2003, p. 31). Hence, children's motor development is capitalised if FMS are mastered before Year 3 and myelination.

PAUSE AND REFLECT 4.8

Thinking about your own experiences

Reflecting on PE lessons or movement in schools, have you noticed differences among the children's abilities and development in Year 3? Think of a child in Year 3 and reflect on their development. How do they compare to other Year 3 children? If you have not noticed anything different, might there be a reason for this?

It is important that children experience a wide range of physical activities and that they have opportunities for physical creativity. Using the analogy of learning to read, it is only after having learnt to read that one can explore the many stories in the library. Likewise, mastering FMS enhances creativity, and specifically child-directed play, through movement learning experiences relating to games, dance, gymnastics and swimming. From a socio-cultural approach, it is a priority that children are equipped with the FMS to enhance their ability to share and cooperate through movement with friends. This often leads to connections within the broader community. Therefore, early years educators need to be experts in early movement if opportunities are to be provided for children to master a wide variety of motor skills, develop motor control and optimise their motor development.

This point is extremely pertinent when teaching PE in the early years of primary school and one that is often overlooked (Lynch, 2016a). For the same reasons that early years educators are required to have developmentally appropriate phonics and numeracy expertise, schools need to provide expertise for learning in the physical area. Consistent with the socio-cultural approach and comparable to play-based pedagogy, learning motor skills requires scaffolding and guidance from an expert to assist the child to become competent. Scaffolding sits within Vygotsky's zone of proximal development (Lynch, 2017, p. 88), and expertise may involve family and community partnerships. While tasks may be initially challenging for the child, practising should occur regularly if the child is to master the skill.

INFORMATION-PROCESSING MODEL

Another model relating to motor control and neurology is the information-processing model, which 'stresses the importance of the internal cognitive processing of the learner' (Rink, 2010, p. 24). This model 'posits three distinct and sequential stages of movement control: perceiving, deciding, and acting' (Williams, 2014, p. 66). Children require a clear idea of the task, need to be actively engaged in the learning process, have plentiful opportunities to practise, and be offered external feedback

as well as opportunities to self-assess through internal feedback. Furthermore, ‘knowledge of how learners process information [information processing theory] helps educators to select appropriate cues and to design appropriate feedback for learners’ (Rink, 2010, p. 24). During practice, formative feedback, such as assessment for learning, is vital.

Popular metaphors are adopted by many educators and coaches. For example, in swimming, the instructor may remind the children to glide through the water ‘like an arrow’, long and straight with arms outstretched, or to have ‘long legs’ and ‘kick their socks off’ during the flutter kick. An analogy for landing safely in gymnastics is to ‘land on your motorbike’, with arms reaching forwards (holding the handlebars), legs bent and shoulder-width apart (sitting on a motorbike).

PAUSE AND REFLECT 4.9

Experiences of movement

Reflecting on your experiences of movement, what are some other effective analogies you are familiar with?

Consistent with the socio-cultural approach, pedagogy will relate to the cultural contexts of the child and school. Groupings, motor development, location, time, resources, facilities and expertise within the community will influence how opportunities are provided. Research indicates that the Perceptual Motor Program (PMP) (see Figure 4.4) implemented with parental assistance is a successful structured program for the early years of primary schools (Lynch, 2005).



Figure 4.4 A PMP can be implemented using parental assistance

CONCLUSION

This chapter investigated QPE in practice. It established that implementing QPE as espoused by the United Nations requires educator knowledge and, ideally, expertise in the bio-physical foundations of human movement and the inclusive socio-cultural approach. Exploring this blend involves examination of literature, curriculum policies and research, determining that children’s health and wellbeing is enhanced through QPE.

QUESTIONS

- 4.1 What does human movement theory look like in schools?
- 4.2 How can ‘belonging, being and becoming’ physically educated be successfully implemented in early years settings?
- 4.3 Why is ‘belonging, being and becoming’ physically educated vital in childhood?
- 4.4 What hidden curriculum messages about movement have been brought to your attention by reading this chapter?

LEARNING EXTENSION

For a number of motor skills to be performed simultaneously – for example, skipping (locomotor) while dribbling a basketball – it is essential that at least one of the motor skills (either dribbling or skipping) is automatic (see Figure 4.3). The information-processing model suggests ‘the ability to perform two motor tasks simultaneously means that at least one set of actions can be conducted automatically (without cognition)’ (Anshell, 1990, p. 19). How could you use this information to inform your planning?

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