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CHAPTER 5

Physically educated: Developing children's health and wellbeing through movement and motor skills

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Introduction

This chapter complements the chapter 'Human movement and motor skills' (Williams, 2014) published in the first edition of this text. As the title suggests, the purpose is to extend Williams' work by investigating examples of practical human movement development embedded within the field of physical education. 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. The socio-cultural perspective suggests that the curriculum be connected to the child's world and everyday interests (Arthur et al., 2015). As children have a natural play structure, learning through movement heightens interest. '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., 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).

Hence, this chapter adopts the same goal as Williams' chapter: 'to highlight the importance of early childhood educators integrating bio-physical and socio-cultural understandings' (2014, p. 62). This is an important goal affirmed by Callcott, Miller & Wilson-Gahan: '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' (2015, 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 quality physical education, and human movement and motor skills in childhood.

Approaching quality physical education Health and wellbeing

Implementing quality physical education increases the likelihood of children experiencing positive health and wellbeing outcomes. One popular and simple definition of wellbeing is 'a state of feeling good about ourselves and the way our lives are going' (Commonwealth of Australia, 2014a, p. 1). Research provides evidence that regular physical activity promotes mental and social wellbeing (Commonwealth of Australia, 2014a; Lynch, 2015a; Parkinson, 2015; Public Health England, 2015; Richards, 2016; Salmon et al., 2011). For social, emotional, intellectual and health benefits, it is recommended that toddlers and preschoolers have at least three hours of physical activity per day, and children aged 5 to 12 years 60 minutes a day of moderate-to-vigorous intensity physical activity (Commonwealth of Australia, 2014b).

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

The marriage of human movement and the socio-cultural approach promotes quality physical education which has driven the last two Australian Curriculum reforms (1994 and 2013) for the learning area of 'Health and Physical Education' (HPE) (Lynch, 2016b; 2014). Thus, the HPE Australian Curriculum offers a national policy balanced in theory and pedagogy, one that is inclusive, promotes social justice and where students are assisted 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 Early Years Foundation Stage (EYFS) in the National Curriculum of England and Wales. The EYFS consists of six areas of learning and development which are equally important and connected. Social and Emotional Learning (SEL) has a strong presence relating to the first of the six areas listed:

- Personal, Social and Emotional Development
- Communication, Language and Literacy
- Problem Solving, Reasoning and Numeracy
- Knowledge and Understanding of the World
- Physical Development
- Creative Development (Department for Children, Schools and Families, 2008, p. 11).

It is stated that 'none of these areas can be delivered in isolation from the others. They are equally important and depend on each other to support a rounded approach to child development' (2008, p. 11). Furthermore, 'all the areas must be delivered through planned, purposeful play, with a balance of adult-led and child-initiated activities' (2008, p. 11).



Figure 5.1 A child's personal, social and emotional development is interconnected with their physical development.

wellbeing into two aspects:

- children become strong in the social, emotional and spiritual wellbeing;
- children take increasing responsibility for their own health and physical wellbeing (DEECD, 2009, p. 23).

It is important to note that while HPE is the only learning area explicitly associated with wellbeing in curricula, it is not and cannot be responsible for all wellbeing development. This statement acknowledges that all areas of wellbeing need to be explicitly taught and that wellbeing does not necessarily occur as a direct result of being physically educated. Similar to what the EYFS proposes, learning needs to be purposefully planned. This is supported by Bailey et al. (2009) who summarised (from a review of educational research papers) that many educational benefits claimed by physical education are highly dependent on contextual and pedagogic variables.

Robbins, Powers & Burgess (2011) establish seven strongly connected dimensions of wellness: physical, intellectual, emotional, social, spiritual, environmental, and occupational. A study that explored the dimension of spirituality in the HPE learning area across three Queensland case study schools (Lynch, 2015b) found 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 the development of all health dimensions, the core of 'Health and Physical Education' – 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 Hellison's Teaching Personal and Social Responsibility (TPSR) model (2011) 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 (Queensland School Curriculum Council, 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. 88). Critically examining literature and taken-

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 the existence of some messages because they become culturally accepted and are not recorded in curriculum materials.

for-granted assumptions within the physical education field from a cultural and historical perspective 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, Kirk & Evans, 1993). Such ideologies often pass on false messages to the child and on many occasions these are unintentional and/or the teacher is unaware of their existence. Ideologies are not recorded in curriculum documents; rather, they are traits taught and learnt through various mediums within society, in what is termed the 'hidden curriculum'.

Military discourse involved 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 described 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' (1991, 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 the first Sputnik 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. This continues to be a concern but in the 1950s, physical education curricula became 'technocratically rationalised' (Kirk, 1988) and the 'new look' physical education curriculum focused on biomechanics, exercise physiology, sports medicine, psychology of sport and history of sport (Kirk, McKay & George, 1986).

Health as an ideology has influenced both society and physical education. Healthism is described by Crawford 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' (1980, p. 366). The television program *The Biggest Loser* is a prime example of healthism, where the body is associated with morally disciplined behaviour and people experience guilt if they are seen as undisciplined.

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

A high-quality physical education curriculum 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), 2016, p. 1).

PAUSE AND REFLECT 5.1: YOUR EXPERIENCES OF PHYSICAL EDUCATION AND SPORT

Reflecting on your experiences of physical education and sport, do you take for granted assumptions raised for educators? Can all children excel in competitive sport? Will playing sport build character for all children? Is fairness and respect an outcome of all sporting experiences?

It is argued by some that this is not possible, suggesting that 'competing drags us down, devalues us psychologically, poisons our relationships and interferes with our performance' (Kohn, 1992, p. 114). Hickey 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 (Hickey, 1995, 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 5.2: 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?

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 (Australian Curriculum, Assessment and Reporting Authority (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, Wright & Clarke, 2009, p. 165). It is proposed that the marriage of human movement and the socio-cultural approach enables quality physical education.

Quality physical education

Quality Physical Education (QPE) needs to be provided for all children. Therefore, all educators must understand how to provide inclusive practice where correct movements can be mastered. QPE is defined by the United Nations Educational, Scientific Cultural Organisation (UNESCO) 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 (2015, p. 9).

Human movement and motor skills in childhood

Motor control

Williams focuses on the bio-physical foundations of human movement in his chapter 'Human movement and motor skills', giving explicit importance to the sub-discipline of motor control. 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' (2014, 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 Movement Skills (FMS).

Fundamental Movement Skills (FMS) are also referred to as Fundamental Motor Skills and are the building blocks to more complex human movements. The Australian Curriculum for HPE shares that FMS 'provide the foundation for competent and confident participation in a range of physical activities' (ACARA, 2016). 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, 2016; Australian Sports Commission, 1997). Manipulative skills include: ball control (bouncing and catching), throwing, tracking/trapping, kicking and striking (ACARA, 2016; Australian Sports Commission, 1997). FMS build a foundation for movements, often relating to games and sports, but they are also, more importantly, the foundation to 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, 2016a). Because many parents value gymnastics, before- and after-school clubs for children are popular but this is an area of the curriculum that is often limited in schools. Ideally, FMS (and DMPs) should be mastered as early as possible. This is supported by the Australian Curriculum for 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 national curriculum is to develop the knowledge, understanding and skills to enable students to 'acquire, apply and evaluate movement skills, concepts

PAUSE AND REFLECT 5.3: DOMINANT MOVEMENT PATTERNS IN THE PLAYGROUND

Reflecting on children's activities in an adventure playground, which rides, climbing frames or activities involve landing, locomotions, swings, statics (non-movement such as balance), springs (leaps and jumps) and rotations?

and strategies to respond confidently, competently and creatively in a variety of physical activity contexts and settings' (ACARA, 2016). 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, 2016, p. 2).

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, Haubenstricker & Seefeldt, 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 where 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 refers to 'motor control' as 'the processes by which motor skills are performed' and identifies the use of models, metaphors and analogies to assist with this process. One model described by Fitts & Posner (1967) is the 'acquisition of motor skills'. The first stage of this model is the 'Cognitive Phase' where 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 large errors such as 'kangaroo jumps' or 'bunny hops'. The second stage is the 'Associative Phase' where the learner refines the mechanics of the skill through practice, using feedback offered by 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 & Posner is the 'Autonomous Phase' where 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

PAUSE AND REFLECT 5.4: CHILDREN'S MOVEMENT AND DEVELOPMENT

Reflecting on children learning particular movements, can you identify times where 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 the particular phase?

the radio. This 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 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. 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 high-pressure games during physical education. If children are able to perform the necessary skills during a game situation, without having to apply the thinking involved in the first two stages of Fitts & Posner's model, they are then able to focus on other aspects of the game, such as strategies. Motor development (Figure 5.2 later in this chapter) 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 seven, 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 unfortunately 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 needs to be critically examined since the children who have had prior experiences are often favoured over those who have not.

PAUSE AND REFLECT 5.5: TEACHING A PHYSICAL EDUCATION 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 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 modern-day challenge for physical educators. The ability to implement strategies that cater for all needs, while enabling enjoyment, engagement and challenges, is evidence of a teacher's expertise as a quality physical educator.

As the National Curriculum of England for Physical Education 'Purpose of study' accentuates, sport sits within the physical education curriculum. There is a misconception at times that physical education is only sport. This becomes confusing for educators in the early years when children's motor control is not developmentally ready to combine a number of motor skills with game rules and strategies (Figure 5.2). 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, 2016, p. 2). The Australian curriculum for HPE also espouses this essential motor development understanding for quality physical education. From Foundation stage through to Year 6, 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, 2016), 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., 2015). Simple games include hopscotch, tiggly, '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 where 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. Safe for all players.
2. Inclusive – all players can participate. This involves having the skill level to participate safely and at an enjoyable level.
3. Engaging – the players' participation is optimised. Waiting time is eliminated or minimal.
4. Enjoyment is prioritised (Lynch, 2013b, p. 19).

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

appropriate phonics and numeracy expertise, schools need to provide expertise the same reasons that early years teachers are required to have developmentally early years of primary school and one that is often overlooked (Lynch, 2016b). For This point is extremely pertinent when teaching physical education in the skills, develop motor control and optimise their motor development.

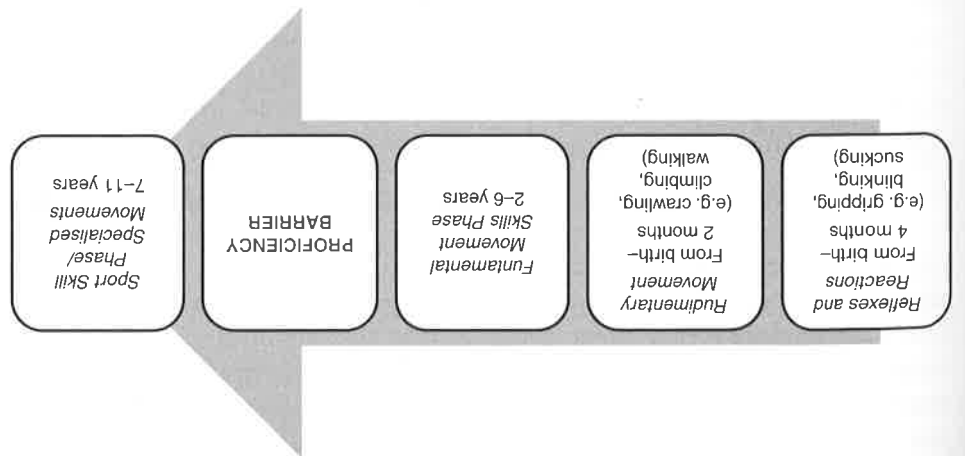
opportunities are to be provided for children to master a wide variety of motor greater community. Therefore, educators need to be experts in early movement through movement with friends. This often leads to connections within the children are equipped with the FMS to enhance their ability to share and cooperate gymnastics and swimming. From a socio-cultural approach, it is a priority that directed play through movement learning experiences relating to games, dance, in the library. Likewise, mastering FMS enhances creativity, and specifically child- that they have opportunities for physical creativity. Using the analogy of learning it is important that children experience a wide range of physical activities and development is capitalised if FMS are mastered before Year 3 and myelination.

is not complete at birth' (Gallahue & Donnelly, 2003, p. 31). Hence, children's motor children's movement skills and it permits the transmission of nerve impulses and Myelination enables smooth coordinated and subsequently increased complexity in turning eight) and culminates with myelination, the production of the myelin sheath. The proficiency barrier generally occurs around Year 3 at school (seven years of age, Vogel (1972) and Thomas (1984).

Miller & Wilson-Gahan (2015), Gallahue & Ozmun (2006), Seefeldt, Reuschlein & opportunities to master FMS are not provided. Figure 5.2 is adapted from Callcott, of motor development illustrates the difficulties that children confront when beginning to the end of life' (Williams, 2014, p. 68). The progression through stages control that deals with the description and explanation of these changes from the important. This is the specialised area of study within the sub-discipline of motor

Source: Lynch (2016a), based on Callcott, Miller & Wilson-Gahan (2015), Gallahue & Ozmun (2006), Seefeldt, Reuschlein & Vogel (1972) and Thomas (1984).

Figure 5.2 Skill refinement leading to lifelong physical activities.



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 and expertise may involve family and community partnerships. While tasks may be initially challenging for the child, practising should be enjoyed regularly if the child is to master the skill.

Information processing model

Another model Williams discusses in relation to motor control 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 practice, 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 'land on your motorbike', with arms reaching forwards (holding the handlebars), legs bent and shoulder-width apart (sitting on a motorbike).

It is commonly recommended that no more than three cues be used so that children can retain the information (Anshell, 1990). For example, three cues for the underarm throw might be: swing back, step forwards (on opposite leg to hand holding the ball) and release. Further detail and a demonstration can accentuate that the arm swings forwards and releases when the hand is directed towards the target. Also, that the opposite arm comes out to the side of the body to assist with balance. Further, pedagogy may involve questioning and exploring to enable children to discover what they think are the most effective steps in this FMS.

PAUSE AND REFLECT 5.6: EXPERIENCES OF MOVEMENT

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

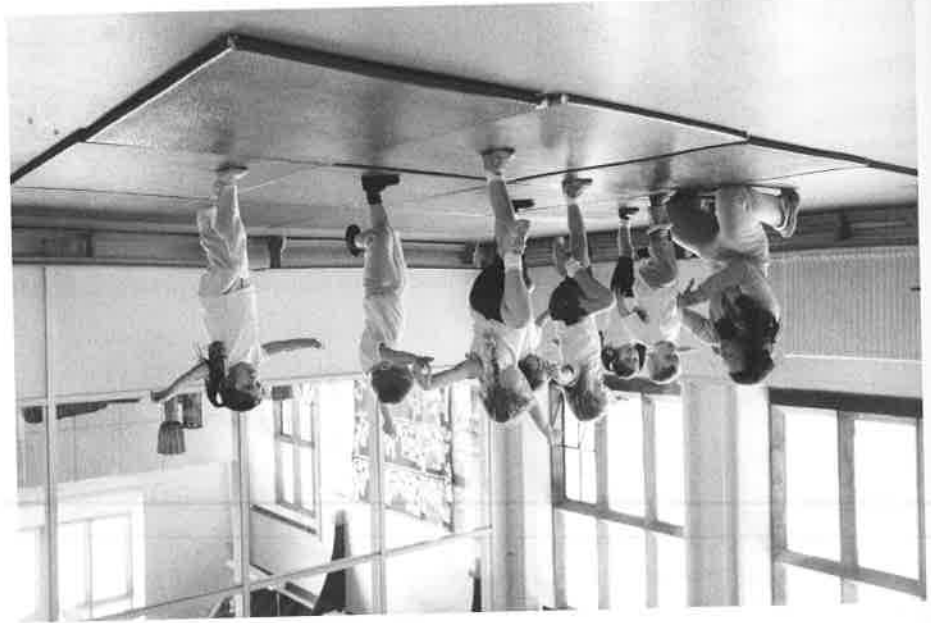
For a number of motor skills to be performed simultaneously – for example, skipping (locomotor) while dribbling a basketball – it is essential that at least one of the motor skills (either dribbling or skipping) is automatic (Figure 5.3).

This chapter investigated quality physical education in practice, complimenting 'Human movement and motor skills' (Williams, 2014) published in the first edition of this text. It was 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 involved examination of literature, curriculum policies and research, determining that children's health and wellbeing is enhanced through QPE.

Conclusion

Source: Getty Images/DGImages

Figure 5.3 A PMP can be implemented using parental assistance.



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)' (Anshel, 1990, p. 19). Emphasis should be placed on correct practice because 'ingrained, highly learnt errors in movement execution (or technique) may be extremely difficult, if not impossible, to correct' (Abernethy, 1991, p. 93). 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) (Figure 5.3) implemented with parental assistance is a successful structured program for the early years of primary schools (Lynch, 2005).

Summary

Educators are encouraged to be creative in their provision of inclusive movement activities and to offer progressive and developmentally appropriate learning experiences. The key messages highlighted in this chapter are:

- Quality physical education enhances children's health and wellbeing.
- Quality physical education is a planned, progressive and inclusive learning experience.
- It is strongly recommended that all children have opportunities to master FMS before seven years of age.
- Educators require expertise in the fundamentals of movement and the inclusive socio-cultural approach.
- The physical dimension is significant within children's learning as it offers powerful and meaningful connections across all learning and development areas.

Questions

- 5.1 What does human movement theory look like in schools?
- 5.2 How can 'belonging, being and becoming' physically educated be successfully implemented in early years settings?
- 5.3 Why is 'belonging, being and becoming' physically educated vital in childhood?
- 5.4 What hidden curriculum messages about movement have been brought to your attention after reading this chapter?

References

- Abernethy, B. (1991). Acquisition of motor skills. In F.S. Pyke (ed.), *Better Coaching – Advanced Coach's Manual*, (pp. 69–98). Canberra, Australia: Australian Coaching Council.
- Anshell, M. (1990). An information processing approach to teaching sport skills to inexperienced athletes. *Sports Coach*, 13, 16–22.
- Arnheim, D.D. & Sinclair, W.A. (1979). *The clumsy child* (2nd edn). London: C. V. Mosby.
- Arthur, L., Beecher, B., Death, E., Dockett, S. & Farmer, S. (2015). *Programming and planning in early childhood settings* (6th edn). South Melbourne, Australia: Cengage Learning.
- Australian Council for Health, Physical Education and Recreation (ACHPER) (1998). *Gymnastics lower primary*. Richmond, South Australia: ACHPER.
- Australian Curriculum, Assessment and Reporting Authority (2012). *Draft shape of the Australian curriculum: health and physical education*. Retrieved from <http://www.acara.edu.au/hpe.html>

- (2016). *The Australian curriculum health and physical education*. Retrieved from <http://www.australiancurriculum.edu.au/download/f10>
- Australian Sports Commission (1997). *Sport it! Towards 2000 teacher resource model: developmental sports skills program*. Canberra: Pirie Printers.
- Bailey, R., Armour, K., Kirk, D., Jess, M., Pickup, I. & Sandford, R. (2009). The educational benefits claimed for physical education and school sport: An academic review. *Research Papers in Education*, 24, 1–27.
- Barnett, L.M., Hardy, L.L., Lubans, D.R., Cliff, D.R., Okely, A.D., Hills, A.P. et al. (2013). Australian children lack the basic movement skills to be active and healthy. *Health Promotion Journal of Australia*. Retrieved from http://www.gorf.org.au/wpcontent/uploads/2014/03/Children_Lack_Basic_Movement_Skills.pdf
- Branta, C., Haubenstricker, J. & Seefeldt, V. (1984). Age changes in motor skills during childhood and adolescence. *Exercise & Sport Sciences Reviews*, 12, 467–520.
- Broekhoff, J. (1972). Physical education and the reification of the body. *Gymnasium*, 4, 4–11.
- Callcott, D., Miller, J. & Wilson-Gahan, S. (2015). *Health and physical education: preparing educators for the future* (2nd edn). Port Melbourne, Australia: Cambridge University Press.
- Cliff, K., Wright, J. & Clarke, D. (2009). What does a 'socio-cultural perspective' mean in health and physical education? In M. Dinan-Thompson (ed.) *Health and physical education: issues for curriculum in Australia and New Zealand* (pp. 165–182). South Melbourne: Oxford University Press Australia and New Zealand.
- Colquhoun, D. (1991). Health based physical, the ideology of healthism and victim blaming. *Physical Education Review*, 14(1), 5–13.
- (1992). Technocratic rationality and the medicalisation of the physical education curriculum. *Physical Education Review*, 15(1), 5–11.
- Commonwealth of Australia (1992). *Physical and sport education – A report by the senate standing committee on environment, recreation and the arts*. Canberra: Senate Printing Unit.
- (2014a). *Wellbeing and self-care fact sheet*. Retrieved from http://www.responseability.org/_data/assets/pdf_file/0011/10541/Wellbeing-and-self-care-final.pdf
- (2014b). *Does your child get 60 minutes of physical activity everyday? Make your move-sit less be active for life! Australia's physical activity and sedentary behaviour guidelines: 5-12 years*. Retrieved from [http://www.health.gov.au/internet/main/publishing.nsf/content/F01F92328EDADADA5BCA257BF0001E720D/\\$File/brochure%20PA%20Guidelines_A5_5-12yrs.PDF](http://www.health.gov.au/internet/main/publishing.nsf/content/F01F92328EDADADA5BCA257BF0001E720D/$File/brochure%20PA%20Guidelines_A5_5-12yrs.PDF)
- Crawford, R. (1980). Healthism and the medicalisation of everyday life. *International Journal of Health Services*, 10, 365–89.
- Department for Children, Schools and Families (2008). *Statutory framework for the Early Years Foundation Stage – setting the standards for learning*.

development and care for children from birth to five. Nottingham, UK: Department for Children, Schools and Families.

Department for Education (DfE) (2016). *National curriculum in England: physical education programmes of study*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/239040/PRIMARY_national_curriculum_-_Physical_education.pdf

Department of Education and Early Childhood Development (DEECD) (2009). *Victorian early years learning and development framework for all children from birth to eight years*. Melbourne: DEECD.

Department of Education, Employment and Workplace Relations for the Council of Australian Governments (DEEWR) (2009). *Belonging, being and becoming: The Early Years Learning Framework for Australia*. Canberra, Australia: DEEWR.

Espenschade, A.S. & Eckert, H.M. (1980) *Motor development* (2nd edn). Sydney: Merrill.

Fitts, P.M. & Posner, M.I. (1967). *Human performance*. Belmont, CA: Brooks/Cole Publishing.

Frost, J.L. (1992). *Play and playscapes*. Albany, New York: Delmar Publishers.

Gallahue, D.L. & Donnelly, F.C. (2003). *Developmental physical education for all children* (4th edn). Champaign, IL: Human Kinetics.

Gallahue, D.L. & Ozmun, J.C. (2006). *Understanding motor development: Infants, children, adolescents, adults* (6th edn). Boston, MA: McGraw-Hill.

Hickey, C. (1995). Can physical education be physical education? *ACHPER Healthy Lifestyles Journal*, 42(3), 4–7.

Hellison, D. (2011). *Teaching responsibility through physical activity* (3rd edn). Champaign, IL: Human Kinetics.

Johnson, R. & Rubinson, R. (1983). Physical functioning levels of learning disabled and normal children. *American Corrective Therapy Journal*, 37, 56–59.

Kirk, D. (1988). *Physical education and curriculum study: a critical introduction*. London: Croom Helm.

— (1992). Physical education, discourse and ideology: Bringing the hidden curriculum into view. *Quest*, 44, 35–36.

Kirk, D., McKay, J. & George, L.F. (1986). All work and no play? Hegemony in the physical education curriculum. *Proceedings of Trends and Developments in Physical Education: the VIII Commonwealth and International Conference on Sport, Physical Education, Dance, Recreation and Health* (pp. 170–177). London: E. & F. N. Spon.

Kirk, D. & Spiller, B. (1991). Schooling the docile body: the social origins of physical education in Victorian elementary schools. In P. Jeffrey (ed.). *Proceedings of the Australian Association for Research in Education (AARE) Conference*. Gold Coast, Australia: AARE.

Kirk, D. & Twigg, K. (1993). The militarization of school physical training in Australia: The rise and demise of the junior cadet training scheme, 1911–1931. *History of Education*, 22(4), 319–414.

Kohn, A. (1992). *No contest: the case against competition*. Boston, USA: Houghton Mifflin Company.

Lynch, T. (2005). *An evaluation of school responses to the introduction of the Queensland 1999 health and physical education (HPE) syllabus and policy developments in three Brisbane Catholic primary schools (Unpublished doctoral thesis)*. Australian Catholic University, Australia.

— (2011, December 17–23). What does a role model Australian primary school Health and Physical Education (HPE) programme look like? Paper presented at the 53rd International Council Health, Physical Education, Recreation, Sport and Dance (ICHER-SD) Anniversary World Congress & Exposition, Cairo (Egypt). Retrieved from http://www.ichpersd.org/publications/Proceedings_for_Cairo.pdf doi:10.13140/2.1.2783.1682

— (2013a). Health and physical education (HPE) teachers in primary schools: supplementing the debate. *Australian Council for Health, Physical Education and Recreation (ACHPER) Active and Healthy Magazine*, 20(3/4), 10–12. doi:10.13140/2.1.2889.6644

— (2013b). 'Poison ball' or a magic potion? Secrets within an infamous game. *Australian Council for Health, Physical Education and Recreation (ACHPER) Active and Healthy Magazine*, 20(2), 19–21. doi:10.13140/2.1.3282.8806

— (2014). Australian curriculum reform II: Health and Physical Education (HPE). *European Physical Education Review*, 20(4), 508–524. doi:10.1177/1356336X14535166

— (2015a). Health and physical education (HPE): Implementation in primary schools. *International Journal of Educational Research*, 70(c), 88–100. doi:10.1016/j.ijer.2015.02.003

— (2015b). Investigating children's spiritual experiences through the health and physical education learning area in Australian schools. *Journal of Religion and Health* 54(1), 202–20.

— (2016a). Australian football: leading children's fundamental movement and sporting skill development. In M. Drummond & S. Pill (eds), *Advances in Australian Football: a sociological and applied science exploration of the game* (pp. 110–119). Hindmarsh, South Australia: Australian Council for Health, Physical Education and Recreation (ACHPER).

— (2016b). *The future of health, wellbeing and physical education: optimising children's health and wellbeing through local and global community partnerships*. London, UK: Palgrave Macmillan. doi:10.1007/978-3-319-31667-3

Parkinson, E. (2015, August 16). Dick Telford's study finds sport can improve NAPLAN scores. *Financial Review*. Retrieved from <http://www.aftr.com/news/special-reports/aftr16sportsportyourchildseducation---20150814-glyyh4>

Public Health England (2015). *Promoting children and young people's emotional health and wellbeing: a whole school and college approach*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414908/Final_EHWPB_draft_20_03_15.pdf

- Queensland School Curriculum Council (1999). *Health and physical education initial in-service materials*. Brisbane: Publishing Services, Educational Queensland.
- Richards, R. (2016). *School sport*. Retrieved from https://www.clearinghouseforsport.gov.au/knowledge_base/organised_sport/value_of_sport/school_sport
- Rink, J.E. (2010). *Teaching physical education for learning* (6th edn). Boston: McGraw-Hill.
- Robbins, G., Powers, D. & Burgess, S. (2011). *A wellness way of life* (9th edn). New York, USA: McGraw-Hill.
- Salmon, J., Arundel, L., Hume, C., Brown, H., Hesketh, K., Dunstan, D. et al. (2011). A cluster-randomized controlled trial to reduce sedentary behaviour and promote physical activity and health of 8-9 year olds: the transform-us! Study. *BMC Public Health*, 11, 759.
- Scraton, S. (1990). *Gender and physical education*. Geelong, Australia: Deakin University Press.
- Seefeldt, V. (1975, March). *Critical learning periods and programs of early intervention*. Paper presented at the AAPHER Convention, Atlantic City, NJ.
- Seefeldt, V.B., Reuschlein, S. & Vogel, P. (1972). *Sequencing motor skills within the physical education curriculum*. Paper presented at the meeting of American Association of Health, Physical Education and Recreation, Houston.
- Smoll, F.L. (1974). Motor impairment and social development. *American Corrective Therapy Journal*, 28, 4-7.
- Tinning, R. (1990). *Ideology and physical education: Opening Pandora's box*. Geelong, Australia: Deakin University Press.
- Tinning, R. & Fitzclarence, L. (1992). Postmodern youth culture and the crisis in Australian secondary school physical education. *Quest*, 44(3), 287-303.
- Tinning, R., Kirk, D. & Evans, J. (1993). Healthism and daily physical education. In Deakin University, *Critical curriculum perspectives in physical education – Reader* (pp. 77-94). Geelong, Australia: Deakin Print Services.
- Tinning, R., McDonald, D., Wright, J. & Hickey, C. (2001). *Becoming a physical education teacher: Contemporary and enduring issues*. Frenchs Forest, Australia: Pearson Education.
- Thomas, J.R. (1984). Developmental motor skill acquisition. In J.R. Thomas (ed.), *Motor Development During Childhood and Adolescence* (p. 125). Minneapolis, MN: Burgess.
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (2015). *Quality physical education: guidelines for policy makers*. Paris, France: UNESCO Publishing.
- Walsh, D. (2016). Teaching the teaching personal and social responsibility model through developmental stages. *Active & Healthy: Promoting Active & Healthy Living*, 23(2/3), 8-11.
- Williams, B.J. (2014). Human movement and motor skills. In S. Garvis & D. Pendergast, (eds), *Health & wellbeing in childhood* (pp. 61-72). Port Melbourne, Australia: Cambridge University Press.