



Conclusion and Recommendations

The purpose of this book is to offer insight into enacting holistic PE physical education and wellbeing. Research findings strongly suggest that holistic QPE quality physical education enhances children's wellbeing, arguably more so than any other curriculum area offered in schools. Quantitative evidence-based research indicates that physical activities optimise children's wellbeing and physical activities are unique to the physical education curriculum; defined as "education through movement" (Pangrazi, 2001, p. 5). This book supplements the prevalent quantitative research with much needed qualitative research investigating PE and wellbeing implementation in schools. Hence, this book is significant as it provides balance and strength to the present quantitative research findings and offers guidance as to how holistic PE for children's wellbeing is best achieved.

Qualitative data has been gathered from deep contextual studies from around the world influenced by Swedish didactical research; supplementing insights into how QPE and wellbeing can be best implemented in schools. Didactical research investigates the relations between teaching, learning and socialisation by exploring theories and practice - asking questions such as who is teaching, who is learning, when and with whom. Subsequently, as addressed in Chapter 1, this book's purpose is: to identify the 'what' of 'physically educating' children; 'how' literature and research suggest this should be done; to identify 'why' this is not happening as

effectively as it should be; and to offer global direction for the journey of improvement. Sub questions such as who is teaching? Who is leading and what qualifications do they have? Who is learning and which community members are being influenced? Exploring beyond the children and students' wellbeing to that of general staff, teachers, and school leaders. This is very relevant at present with inquest findings identifying Ofsted inspections in the UK officially contributing to the death of Headteacher Ruth Perry (Courts & Tribunals Judiciary, 2023).

When and with whom learning happens is also considered as part of the learning context. Educators knowing their environment and selecting the most appropriate education approaches in a timely manner to suit their particular context is referred to as place-based pedagogy. Through research, problems with implementing the PE curriculum in primary/elementary schools are identified and recommendations are made for advancing the physical dimension in children's learning, enabling subsequent lifelong wellbeing benefits. Thus the political, economic and social conditions are acknowledged and reflected upon as educational practices are explored and scrutinised. This is significant, as while the strengths of quantitative methods have been well suited to scientific research over the last century (Kervin et al., 2006), it is the richer and more varied insights offered by qualitative research that is commonly used in education and social sciences (Kervin et al. 2006; Lune & Berg, 2017; Merriam, 1998; Salkind, 2017).

It is suggested that to optimise wellbeing children are first and foremost "physically educated". This is the nature of the learning area and educators must get this right if they are to reach all children in all schools. Hence, laying a strong 'physical dimension' and subsequent wellbeing platform is necessary to achieve a holistic 'Health and physically educated' child. Therefore a strong, clear and comprehensive grounding in quality PE is essential for both teachers and students. For far too long in primary schools around the world, PE has been marginalised—dismissed as not a serious subject. In the future PE will be arguably, 'the most important' learning area as "there is no higher priority in life than health. Without it, all other skills lack meaning and utility" (Pangrazi, 2000, p. 18). Primary and secondary schools play a key role in children's health and wellbeing and according to education policy and global guidelines, holistic PE must be prioritised. "Physical and health education has the potential to become one of the cornerstones of the education of tomorrow that contributes to the holistic development of students, fostering the development of crucial

competencies and the physical and mental health of students” (OECD, 2019).

Figure 1.2 (cf. p. 18) illustrates the dimensions of ‘physically educating’ children and offers a framework for optimising children’s wellbeing in schools through QPE. This framework is an extension to the HPS framework, sharing similarities, but with a PE focus it is fundamentally different. Physically educating all children entails four pillars:

1. Curriculum, teaching & learning—this focus prioritises movement in lessons, enabling inclusive experiences where all children are given the opportunities to develop the necessary movement skills (beginning with FMS). While having a physical (and cognitive) focus children are able to engage and enjoy moving which sets the platform for a lifetime.
2. Whole child development—Educators and students are aware and constantly work towards the bigger picture; the holistic ‘Health and physically educated’ child. Evidence-based research (quantitative and qualitative) illustrates how the various dimensions of holistic PE compliment one another: spiritual; social and emotional; physical; and cognitive. All dimensions are enhanced through QPE and the more any one of these dimensions is enhanced the more the other dimensions can benefit.
3. School implementation (organisation, ethos and environment)—the H, W & PE curriculum area is implemented using an inclusive socio-cultural approach (including equality, diversity and inclusive (EDI) practices), consistently throughout the whole school. This requires leadership and strong communication. School leadership was a pertinent issue raised, specifically the role of principals/headteachers in deciding who they employ within the school to coordinate health, wellbeing and physical education. Furthermore, deeper didactical questions raised concerns about school leaders and governing authorities’ (for example Ofsted inspectors) preparation and qualifications. Are they able to deeply understand their influence on the wellbeing of all community members? Furthermore, their knowledge and understanding of how to deeply implement wellbeing, and curriculum reform more generally, are significant to their leadership role.

4. Community strength-based partnerships are developed and maintained to optimise teaching and learning resources and opportunities, subsequently optimising children's wellbeing.

For these QPE dimensions to be achieved UNESCO developed a national strategy:

1. Teacher education, supply and development
2. Facilities, equipment and resources
3. Curriculum flexibility
4. Community partnerships
5. Monitoring and quality assurance (2015, p. 23).

Furthermore, this research book investigates how learning not only in HPE but across all learning areas, especially across traditional core learning areas such as literacy and numeracy; using a whole school approach, can be optimised through the enhancement of wellbeing (cf. Figure 1.2). Hence, using evidence-based research to authenticate the power of wellbeing, specifically through the coordinated, deep implementation of Learning Values/competencies, the book offers direction in developing children's academic learning and development (cf. Figure 1.1). In summary, the four dimensions for optimising children's wellbeing in QPE (cf. Figure 1.2), enacting Learning Values across the three key curriculum pillars: Community (belonging and partnerships), metacognition (thinking about learning) and values (global citizenship) (Fig. 10.1), and the UNESCO national strategy, are strongly supported by the qualitative findings within this research book.

APPROACHES TO PE

Considering the dimensions of Physical Education there are various approaches (and theories and models within) that have influenced delivery throughout history. Approaches to education and health evolve from the psychological perspectives which frame the theory of knowledge; biological, behavioural, cognitive, psychoanalytic and phenomenological. Educators' understanding of the various approaches will only strengthen

practice within schools as they enable teachers to identify the most appropriate approach, subsequently influencing pedagogy within particular teaching and learning contexts.

When an approach dominates practice then this ‘reflects perceptions, values and knowledge’ (Ornstein & Hunkins, 2017, p. 2) within society. Furthermore, they reflect the teacher’s belief about how children learn, how children are supported by families, communities and educators, as well as what is important for children now and in the future (Arthur et al., 2015). We are reminded that schools do tend to commit to one particular approach although many educators do not (Ornstein & Hunkins, 2017). This is why it is pertinent that all educators continue to develop their understanding about education approaches; behaviourism, constructivism and critical.

The modern approach towards public health and health education considers determinants of lifelong health and wellbeing—some factors being more in the individual’s control than others (Corbin et al., 2011). Health approaches include: the biological approach (eg. medical model); behavioural approach (eg. transtheoretical model of behavioural change); and the social approach to health (eg. social model to health and social-ecological model (SEM)/socio-cultural approach). The literature acknowledging the ‘big picture’ of health and the determinants which may or may not be in an individual’s control sit within the World Health Organisation’s (WHO) definition of health; “a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity” (WHO, 1948).

All educational and health approaches do have a place in schools and evidence-based research suggests that there should be balance and not a prevalence of certain approaches (and pedagogies embedded within). Rather, modern day PE teachers (whether specialist or classroom) need to be able to deliver quality PE lessons across strands of Physical activity, Health and Personal Development/Wellbeing. This often involves choosing critical, socially just pedagogies (inclusive) rather than the traditional dominant science and performance-based pedagogies for HPE, which focus on technical outcomes in movement (Tinning, 1999).

It is essential that wellbeing implementation occurs not only for the children and students but extends across the whole school community. Investigating the model of the Singapore education system is significant as they are currently ranked first in the world for PISA results, scoring significantly higher than all other countries/economies in Mathematics (575

points), Reading (543 points) and Science (561 points) (OECD, 2023). Furthermore, when Singapore attained statehood in 1965, most of its two million people were illiterate and unskilled. There are some salient characteristics and/or priorities embedded within the constructivist approach that have enabled Singapore's success. They are:

5. Teachers are valued and respected—teachers are selected according to ability and application, education qualifications are highly regarded and prospective teachers are paid to study.
6. Physical Education (PE) is offered and prioritised as a specialist learning area and is developmentally appropriate for the children in schools.
7. Teacher education (NIE) researchers and MOE Directors are passionate about children's development and are actively involved in schools and with children.
8. School community members are identified as lifelong learners and can evidence this through professional development. Teachers, like the children, are acknowledged and pride themselves for using values and modelling Learning Values such as being curious, creative, collaborative, passionate, resilient, courageous and reflective.

The Ministry of Education (MOE) Singapore has a Framework for twenty-first Century Competencies and Student Outcomes. At its centre, the core values include: respect, responsibility, resilience, integrity, care and harmony. Values have been significant and a purpose of most schools since they began, predominantly in schools with religious affiliation.

There is evidence from across the globe that the implementation of values enhances the wellbeing of children but also that many schools find this difficult to do, illustrated by OECD's research report (2021); *Embedding Values and Attitudes in Curriculum: Shaping a Better Future*. "Incorporating values and attitudes in curriculum design and implementation does not come without its challenges—values and attitudes can be intensely contested constructs" (OECD, 2021). The values have a similar impact to that of Antonovsky's salutogenic model for Health, only on a larger scale, passing on knowledge and preparing children for life in a rapidly changing world. Subsequently, there are nine competencies (attitudes, values and skills): *Reflection, Collaboration and cooperation,*

Learning to learn, Respect, Responsibility, Empathy, Self-regulation, Persistence and Trust (OECD, 2021, p. 48). Deep implementation of Learning Values occurs in all aspects of a child's lived experience. Planned learning (formal), unplanned learning (informal), intentional or not; in what is termed a large learning ecosystem. Thus placing greater importance on school leaders having the knowledge of how to enact genuine wellbeing within their school.

Wellbeing enacted within schools is enhanced by the implementation of values and by QPE, embedded within the socio-cultural approach and using a whole school approach. While there are programmes and movements available to assist schools with implementing Learning Values/competencies, these offer a general framework and/or advocate particular approaches to education; they are not specific to the school's context. Furthermore, while some programmes or movements may claim values or competencies as their particular programme's concept, it does need to be stated and clarified that Learning Values/competencies have always existed within schools and society, just as educational approaches have also existed—in HPE, the whole person being, belonging and becoming physically educated (body, mind, spirit and wellbeing) dates back to the Athenians and Romans in ancient history. Holistic health approaches offering a strong wellbeing platform are there for all schools to use, requiring implementation by knowledgeable and professional school leaders. Furthermore, the nine competencies (attitudes, values and skills) are identified through evidence-based research as representative of nations across the globe and also form a platform for all schools.

Therefore, it is the school leadership and governing authorities who are responsible for coordinating the process of Learning Values/competency identification, significant to the context of the school; underpinned by the vision and the mission of the school. In a school that purports to develop the whole child, the school leaders as professionals are obligated to ensure Learning Values that are chosen as representative of their community, are deeply implemented. No programme or movement can do this on behalf of the leadership team, not without spending months, if not years within the specific school context. Furthermore, it is essential that, just like any curriculum, the Learning Values must be developmentally appropriate for the children and are considered/referenced during any curriculum planning. Moreso, it is vital that they are balanced across the three key curriculum pillars: Community (belonging and partnerships), metacognition (thinking about learning) and values (global citizenship)

(Fig. 10.1). Finally, that they are referred to contextually and modelled by all community members.

Educators need to be models of Learning Values in all they do, furthermore, similar to the high expectations set for the children, educators are required to be critically reflective, lifelong learners. This includes all educators referring to their school community's Learning Values through verbal, non-verbal, paraverbal and written forms of communication, and policies. Also, they need to be aware of the influence that external or governing bodies have on the community and the wellbeing of community members, whether or not it is through the 'hidden curriculum'. For example, if a school leader or teacher (classroom or specialist HPE) is not qualified or has minimal qualifications, then it needs to be reflected upon by the community of what Learning Values/ competencies this negatively influences or even forms a paradox to. A school cannot purport the Learning Values of *Learning to learn, Respect, Responsibility and Trust* if their actions communicate the opposite. In this example, such actions or choices would be disrespectful to the learning community.

Hence, all qualifications and professional development, including school leaders' reduced training programmes such as National Professional Qualifications (NPQs), send a powerful message. School leaders and teachers need to be mindful of the message they portray in their learning community, including the modelling of Learning Values/ competencies and their professional role to have all members believe in the holistic constructivist approach.

School community members, leaders, teachers (and parents) need to be educated so that they are aware of 'Governmentality' in practice, the hidden messages (discourses) and the damage it causes to school community members. Furthermore, school leaders need to have the knowledge and confidence to challenge such practice that negatively impacts their learning community. Governmentality is the "deployment of governmental strategies that seek to shape the conduct of individuals and collectives" (Tinning, 2010, p. 147). Governmentality in practice appears in many forms such as: school inspectors, with no research qualifications, entering schools to make judgements; condensed government school qualification programmes such as NPQs and ignoring equivalent degrees or credentials; reduced qualification requirements for teachers and school leaders; pressure for test results; PE classes (and classrooms) being taught by unqualified teachers; choice of whether the school wishes to implement personal development and wellbeing; using physical activity as

a punishment; adopting an exclusive (rather than inclusive) curriculum policy; compulsory BMI tests for all children in Reception and Year 6 knowing that it is an imperfect measure for determining the extent of body fat; labelling children as fat and/or obese and then passing the blame to the parents. Examples such as these all sit within ‘The body viewed as an object’ (*relating to behavioural model in education/ efficiency (top down)/governmentality/ medical model in health & behavioural model in health*).

GLOBAL TREND

Traditionally, the behavioural approach has been most dominant within education systems around the world, including PE. This approach is renowned for being teacher-controlled and involves little student choice or interaction (Westbrook et al., 2013). However, many nations today advocate a constructivist approach to education and PE. This book adopts ‘education through movement’ as a lens to advocate a holistic approach towards child health and wellbeing; hence, the book’s premise sits within the constructivist approach. Furthermore, the constructivist approach is synonymous to QPE where: children are active learners; participate in integrated hands on experiences with open-ended materials; and they construct new meanings” (Arthur et al, 2015). In a constructivist approach learning experiences are meaningful and engaging, and the teacher is viewed as a co-learner and facilitator of the learning process (Ewing, 2010).

A shift towards a constructivist, socio-cultural approach in education has experienced a Health, Wellbeing and Physical Education (H, W & PE) revolution—described as a growing global curriculum reform, one that is in the best interest of the whole child. This is where PE is not seen as a single 45 minute lesson that may occur once a week but rather where the physical education lesson is acknowledged as the platform to wellbeing, infused across all curricula and extracurricular activities within school as well as the child’s greater community. This includes the complex layers of relationships between individuals and groups, involving personal, interpersonal and environmental factors. However, research evidences that in many nations the H, W & PE revolution often only exists as policy and fails to reach children in schools; on sporting fields or in gym halls.

An holistic HPE requires an inclusive, developmentally appropriate and progressive infrastructure beginning within early years of primary schools.

Such an infrastructure will engage and challenge all children, subsequently enhancing individual and team success, provide diverse movement opportunities and ultimately optimise health and wellbeing. This concept was supported by the inaugural ICHPER-SD world congress 1958 theme; ‘Child Health and the School’. However, while this shift has been around for some time, it has been slow in its global traction.

Health within Physical Education (PE) has impacted many parts of the world as evidenced by curriculum policy. Hence, the Health, Wellbeing and Physical Education (H, W & PE) revolution has and continues to grow globally. Furthermore, the worldwide survey of school PE found that countries of ‘Best Practice’ had a common theme relating to “promotion of health and healthy lifestyles” (UNESCO, 2014, p. 10). Hence, when considering QPE implementation in primary and secondary schools around the world, the promotion of health (holistic approach) is of major significance.

A growing number of nations have made the shift to an holistic HPE curriculum and these numbers are rising. Nations embracing H, W & PE include: Australia, United States, United Kingdom (Wales & Scotland), New Zealand, Singapore, Canada, China, Malaysia, Brunei Darussalam, Philippines, Japan, Nepal, Thailand, Cambodia, Indonesia, India, Sri Lanka, Finland, Ireland, Northern Ireland, Netherlands, Switzerland, Sweden, Cameroon, Nigeria, Uganda, Sudan, Malawi, Namibia, Tanzania, Afghanistan, United Arab Emirates, Cook Islands and Samoa.

FINDINGS AND RECOMMENDATIONS

A constructivist, socio-cultural approach shift must continue across all nations for children to experience optimal wellbeing. Furthermore, wellbeing needs to be deeply implemented using Learning Values/competencies that are representative of the school’s vision and mission. For this to occur, it is essential that holistic HPE policy becomes deeply rooted in curriculum reform in every school. The book’s qualitative research findings suggest that for children’s wellbeing to be optimised the following recommendations need to be enacted:

1. *PE is prioritised—acknowledged as one of, if not the most important curriculum area in all schools.*

A quality PE school programme rather than being neglected or relegated a minor place in the school curriculum, must play a dominant role in the development of the child from the early years of primary school. PE includes all learning through movement experiences. Examples include the fundamental movement skills, traditional sport related physical activities, play-based learning, Forest Schools and dance.

2. PE must be Quality PE (QPE)

As recommended by global policy, QPE is the ideal pedagogical way to implement PE for enhancing all dimensions of health. Thinking through the mind's eye of a child, it is intrinsically natural for all children to enjoy movement engagement for the purpose of play, games, exploring, learning, developing Fundamental Movement Skills (FMS) and Dominant Movement Patterns (DMP). Children want to be included; to truly belong; to be acknowledged; and to discover exciting ways to feel good about themselves and their movement. Inclusive education requires access to QPE, to equipment/ facilities and to opportunities to develop skills correctly with optimal participation (including EDI practice). It involves developmentally appropriate content and experiences, a knowledgeable teacher who cares about each child's progress, who is interested in each child's movement and enjoys working with children generally.

3. The key wellbeing development responsibility of holistic H/PE is associated with being 'physically educated'.

Within the dimensions of health (physical, social and emotional, cognitive and spiritual) while it is acknowledged that all are significant, it is the 'physical' explicitly named in the nomenclature, and the value of movement that forms the foundation of the Health and 'Physical' Education learning area.

This is best captured in the Australian curriculum:

The knowledge, understanding, skills and dispositions students develop through movement in Health and Physical Education encourage ongoing participation across their lifespan and in turn lead to positive health outcomes. Movement competence and confidence is seen as an important personal and community asset to be developed, refined and valued. The study of movement also provides challenges and opportunities for

students to enhance a range of personal and social skills and behaviours that contribute to health and wellbeing. (Australian Curriculum, 2019)

4. *QPE is the only label advocated.*

There has been global confusion among practitioners responsible for physical education implementation, caused by the labels and branding within PE; “Physical education”, “health and physical education”, “physical literacy” and “health literacy”. As published by Lynch and Soukup (2016), the ambiguous grey area surrounding the terms PE and HPE have seen the rise and traction of new terms to represent and replace the original meaning of Physical Education, such as ‘Physical Literacy’. This theory is supported by Jurbala (2015) who shares that physical literacy has become a replacement term for holistic development. Therefore, many of physical literacy characteristics are not new and have been borrowed from PE, specifically literature relating to ‘QPE’ and ‘lifelong physical education’. It is recommended that QPE be the only label used within PE, enabling much needed global clarity among educators.

5. *Wellbeing enacted within schools is enhanced by the deep implementation of Learning Values/competencies not only in HPE but across all learning areas.*

As evidenced by the Singapore education system, literature detailed throughout this book and the data and research findings in the earlier chapters, the Learning Values/ competencies enable the development of the whole person; body, mind, spirit and wellbeing (*relating to process/ humanistic perspective/constructivist approach/learning across dimensions/ social model of health*). Research has identified nine competencies (attitudes, values and skills) that are common across the globe and are available for all schools to use: *Reflection, Collaboration and cooperation, Learning to learn, Respect, Responsibility, Empathy, Self-regulation, Persistence and Trust* (OECD, 2021, p. 48). The data findings suggest that they are embedded within the socio-cultural approach and using a whole school approach.

6. *Community partnerships are essential now and in the future.*

Leading ‘curriculum reform’ countries such as Singapore, Australia and Finland, explicitly advocate partnerships to help enact their holistic H, W & PE curriculum. According to the United Nations, ‘partnerships’ are essential for optimising children’s QPE experiences and continued efforts towards equality in health and wellbeing (Lynch, 2016). Data gathered suggests that community partnerships enhance children’s PE experiences and ultimately their wellbeing, across all research projects. The most significant finding was that partnerships (priority 4 in the UNESCO national strategy) enabled more facilities, equipment and resources (priority 2 in the UNESCO national strategy) (2015, p. 23).

- 7. A predominant behavioural approach to PE should be avoided as it does not acknowledge the whole child and can be harmful to children’s wellbeing.*

A behavioural approach to PE advocates a focus on the body as an object rather than the ‘whole’ child, which throughout history has been underpinned by ideologies including sexism, elitism, healthism, individualism and mesomorphism. Literature and research suggest that the National Curriculum for England in PE is heavily influenced by the behavioural, top-down governmental approach in education; being described as deliberate, systematic, planned attempts to change behaviours. Hence, such ideologies are present in education systems, having short and long-term detrimental effects on many children’s wellbeing (Curran, 2014).

- 8. PE, Health and Wellbeing curriculum must be developed, implemented and evaluated based on evidence-based research.*

Curriculum statements about sport and PE such as the ones located in the English national curriculum ‘purpose of study’ for PE, are assumptions. While they may be outcomes experienced at times by some children through sport, for many children they contradict experiences. As supported by Ofsted, curriculum expectations and reform must follow evidence-based research regarding quality practice.

- 9. ‘Teacher education, supply and development’ is the key to enhancing children’s wellbeing.*

‘Teacher education, supply and development’ is the first listed priority in the UNESCO national strategy for QPE. Critical socially just pedagogies necessitates teachers being trained and educated in this mode of teaching (Tinning, 2004). This requires educator knowledge and ideally expertise, in the bio-physical foundations of human movement and the inclusive socio-cultural approach to implementing (including EDI). Hence, teachers of today require an understanding of how to provide inclusive practice in H, W & PE, knowledge of correct movements (ie. human movement) and knowledge of how correct movements can be mastered by children of varying physical activity experiences and ability.

Furthermore, we are presented with a unique opportunity where HPE specialists can also lead wellbeing; Health, Wellbeing and Physical Education specialists. Hence, education degrees in Initial Teacher Education (ITE) can be strategically amended and supplemented so that in the Australian state of Victoria, for example, where it is planned that wellbeing will be increased in every primary school by employing a Mental Health and Wellbeing leader; the Health, Wellbeing and Physical Education specialist can lead and implement wellbeing in addition to HPE.

10. A whole school approach needs to be adopted for HPE and wellbeing implementation.

The data generated suggests that a Whole School Curriculum Program (WSCP) for HPE increases the likelihood of quality experiences for children in schools, as it increases the rate of developmentally appropriate activities. This results in enhanced student interest; a positive effect on students’ attitudes towards physical activities and holistic dimension connections. ‘Healthy schools’ or ‘health promoting schools’ approaches are used by some schools to help translate the whole school approach into practice and to enhance health and educational outcomes of their pupils (Lynch, 2017; Public Health England, 2014).

A whole school approach should also be used to ensure the deep implementation of wellbeing across all areas of the school curriculum (including HPE), enacted across three key curriculum pillars: Community (belonging and partnerships), Metacognition (thinking about learning) and Values (global citizenship) (Fig. 10.1; p. 155).

11. *Specialist teachers are associated with quality delivery of all dimensions of HPE*

When principals were commenting on key attributes of a good HPE teacher - the top five responses were: HPE curriculum knowledge and developmentally appropriate pedagogy; planning/ assessment and flexibility; rapport /communication and management skills; passion/ interest/ enthusiasm in HPE and children; and that they are a good classroom teacher also. Principals believed a course that qualifies teachers to be generalist classroom teachers and HPE specialists would be or would probably be valuable (83.2%). Only 2.4% of principals indicated that it would not be valuable. Principals very much valued PE teacher's expertise and there is a direct connection between limited HPE specialist teachers in rural and remote schools of Australia and these areas having a low sense of student belonging, relating directly to wellbeing (ACER, 2018, p. iii).

12. *QPE enhances wellbeing and all children's development and academic learning.*

The connection between the cognitive dimension (including metacognition) and the physical dimension has been clearly identified historically by the constructivist approach in education. The Quality physical education (QPE), wellbeing and academic learning cycle, (cf. Table 1.1, p. 17) aligns QPE to optimising academic learning through wellbeing. "Metacognition refers to higher order thinking which involves active control over the cognitive processes engaged in learning" (Livingstone, 2003, p. 3). This is supported by the latest findings in neuroscience where our brain connections, known as plasticity, actually get better with age (cf. p. 7), enabling increased cognition (thinking) capacity (Greenfield, 2012).

Deeply implemented wellbeing using Learning Values and HPE is evidenced by the Singapore model (and Finland), PISA results, the PTE and PTM assessments in the BSO case study school, and the full curriculum recovery in the UK maintained school case study (located in Asia). This book's research found that children also believe that physical activities enhance their enjoyment of learning within the classroom in other key learning areas through relieving stress, enhancing motivation, self-esteem and increasing concentration. It was affirmed by some

school principals' that PE led to improved academic performance and many children believed PE enabled them to perform better in class.

13. Every primary school requires a tertiary qualified health and physical education teacher (or an H, W & PE specialist teacher)

Over the last 30 years (Cale & Harris, 2019; Commonwealth of Australia, 1992; Lynch, 2005) and more recently in the Active Healthy Kids Australia (AHKA) report (2018) it is recommended; "every primary school have a tertiary qualified health and physical education teacher who delivers physical education classes to all students and supports classroom teachers to engage students in physical activity throughout the school day". Courses that qualify teachers to specialise in health and physical education, and become a classroom teacher specifically for primary education are rare globally but must be prioritised.

It is recommended that similar to the Singapore model, pre-service primary teachers have the opportunity to specialise in HPE, specifically developmentally appropriate for the primary school. Such a course enables teachers passionate in health and wellbeing, and who want to specifically teach primary aged children, to develop appropriate pedagogy and a holistic health understanding across all strands. It is also recommended that a Bachelor of Education (Health and Physical Education) testamur and course be offered within universities/Initial Teacher Education courses. This requires funding for H/PE specifically in higher education/teacher preparation and continued professional development for teachers.

Over the years large sums of funding have instead been invested into short-term school-based physical activity programmes, after school sports or physical activity alternatives which have been ineffective in improving children's activity levels (BBC, 2017; Department of Culture Media & Sport, 2016; James & Brophy, 2019; Lynch & Soukup, 2017). It is time to invest for long-term health and wellbeing benefits for all children. Offering qualifications which enable primary classroom teachers to specialise in H, W & PE (holistic HPE) and be recognised for this, is a present and future need.

14. School Leadership plays a vital role in optimising children's wellbeing through HPE.

Implementation of H/PE is enhanced by HPE leadership, underpinned by clear communication (Lynch, 2017). The findings of this research book support Macdonald who argues that HPE is best led by the HPE specialist (Hickey et al., 2014, pp. 190–191). Principals [Head-teachers] need to facilitate the curriculum change socially complex process (Fullan, 2001; Sparkes, 1991). This can be achieved by providing learning experiences where teachers can exchange ideas, support one another, and share positive feelings about their work (Fullan, 2001), in an environment which provides critical reflection. It is through questioning interests and ideologies, impacting on curriculum documents which enable opportunities for teachers to consider the micro-politics of curriculum change (Glover, 2001). Furthermore, it is the inability to do this which often causes change to fail (Datnow, 1998; Dinan-Thompson, 2002; Sparkes, 1990).

15. School Leaders as lifelong learners are educated about deeply implementing Learning Values/competencies.

As detailed in the literature, deep implementation of the Learning Values/ competencies has many wellbeing benefits for community members, including academic outcomes. However, it is also extremely complex. Hence, if it is to be implemented successfully then it really does depend on the school leaders' ability to do this. Teacher, Senior Leader and Inspector qualifications have been questioned a number of times in the literature, as has the design of certain programmes and courses. It is a recommendation that Senior Leaders are professionally developed in relation to their responsibilities to coordinate curriculum reform; specifically in relation to the implementation of the Learning Values for wellbeing. This includes whole school approach strategies that evidence success. Furthermore, school leaders need to be educated about the significance of the physical dimension and holistic HPE.

16. All education systems critically reflect on the Singapore education model

The final recommendation is that all nations from around the world explore the Singapore education model and critically reflect on how

they have enabled their continual improvement. In particular, Singapore's priorities are embedded within the constructivist approach that has enabled their HPE, wellbeing and academic learning success. They are:

17. Teachers are valued and respected—teachers are selected according to ability and application, education qualifications are highly regarded and prospective teachers are paid to study.
18. Physical Education (PE) is offered and prioritised as a specialist learning area and is developmentally appropriate for the children in schools.
19. Teacher education (NIE) researchers and MOE Directors are passionate about children's development and are actively involved in schools and with children.
20. School community members are identified as lifelong learners and can evidence this through professional development. Teachers, like the children, are acknowledged and pride themselves for using values and modelling Learning Values such as being curious, creative, collaborative, passionate, resilient, courageous and reflective.

This book sits within what Greenfield refers to as 'deep thinking', 'content' or 'meaning' (2012), also referred to as 'ideas, thinking, and constructing' (Hattie, 2009, p. 26). That is, the book is a culmination of years of evidence-based qualitative research, practical experience and internal insight, carefully crafted to make meaning. Thus, the findings build upon the abundance of quantitative research supporting children's wellbeing enhancement and subsequent academic outcomes through holistic physical education. The physical dimension is a powerful pathway for children's learning and holistic development. It cannot be stressed enough that learning through movement involves children from the very beginning of primary/elementary school truly belonging, being and becoming physically educated. Hence, PE is every teacher's friend in enhancing children's wellbeing now and in the future.

REFLECTION

This chapter offers recommendations for enacting holistic PE (HPE) and wellbeing. Research strongly suggests that QPE enhances wellbeing, arguably more so than any other curriculum area. How does this statement relate to your context? What are the barriers to embedding Learning Values in the curriculum within your context? Which Learning Values best represent your context? How do they relate to your vision and mission policy? Which of the 16 recommendations are most significant within your context and why?

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