

Revista Electrónica Actividad Física y Ciencias

Año 2016 Vol. 8 N° 1

Quality Physical Education and Global Concern – Ways Ahead and Future Development

Autores:

¹ Walte^r King Yan Ho,

² Md. Dilsad Ahmed

¹ Beatriz Wong,

¹ Fan Huang

University of Macau

³ Rosa de D'Amico

Universidad Pedagógica Experimental Libertador

³ Maria Dinold,

University of Vienna

⁴ Antala Branislav,

Comenius University in Bratislava

Abstract

The works for quality development of physical education turned to be a worldwide concern when UNESCO proposed the International Charter for Physical Education and Sport in 1978. The movement for quality physical education was then established with main focus on different perspectives that covered issues from human right to the curriculum development, teaching, sport coaching, professional training, research and international collaboration and related policy making. The coming of documents such as NASPER's benchmark in physical education in 2004, UNESCO Report on Quality of Physical Education and Sport (2005), Strategies to Improve the Quality of Physical Education by CDC in 2010 and the recent Quality Physical Education – Guidelines for Policy Makers by UNESCO (2015) were the initiatives to provide rich resources in forming the basic framework for quality development of physical education. Nevertheless, the report on physical education by Ken Hardman in 2008 indicated the worry as “mixed messages” was presented due to strong evidence of national commitment on physical education but slow to transform this initiation with full action and concrete implementation plan. “What goes wrong?” seemed to be the question that needs a response if the quality development of physical education is regarded as the way to improve the quality of students' learning. The four association members of ICSP (ISCPES, IAPESGW, IFAPA and FIEP) launched a research project on Quality Physical Education (QPE) in 2011 with aims to understand the concept of QPE. This paper shared the findings from the QPE research and illustrated about the possible strategies for future development of QPE in schools. Proper investment and appropriate strategies with innovative works on steps and phases seemed to be the best option for development of core elements in QPE. While those elements there were in improvement stage, substantial

work to maintain its provision seemed essential.

Keywords

Quality Physical Education, School Sport Development, Reforms Works in Physical Education

Introduction – Quality Issue in Education

To improve students' learning for better life development, cognitive understanding and social return through the establishment of quality programmes in education seem to be the major concern of professional. This phenomenon has been found in all subjects of learning and recorded in every corner of the world. For example, China adopted "Quality Education" (Suzhi Jiaoyu) as the main theme during the 2000s reform works in education. The reform indicated clear objectives to place generic and life skills as focal points in development (National Center for Education Development, 2000: p.28). In the city of Hong Kong, the Education Commission Report No.7 in 1997 focused on the development of Quality School Education as the main agenda and this concept was expected to be implemented in different learning phases (Education Commission, 1997). Such quality concept was further promoted into the "Learning to Learn" curriculum reform in 2000 by Curriculum Development Council to indicate the development of necessary natural life abilities that every student should have as modern person. These natural life abilities were referred to generic skills in the reform document and contained the features of learning in collaboration, communication, creativity, critical thinking, information technology, numeracy, problem solving, self-management and study skills in information collecting. These natural skills were expected to be the main task of development throughout the different key learning stages from junior primary to senior high (Curriculum Development Council, 2000: pp.35-36). Such desire to include quality concept in education turned to be the UNICEF issue and a paper on "Defining Quality in Education" was presented at the meeting of The International Working Group on Education in June 2000 at Florence, Italy. The recent World Bank 2014 report on educational development in South Asia also indicated about the needs of quality improvement in education. Although primary school were almost fully funded, the lacking of suitable efficiency was the concern and needing to do more to improve the quality of education was the urge in the World Bank report.

Quality Issues in Physical Education and the Holistic Concept of Development

The word "quality" carries the initiative to improve or indicates an action or activities to achieve subject's excellence in life, social, physical and educational aspects through development of well plan programme (UNICEF, 2010). When this concept applies to the quality works in physical education, it refers to the excellence of educational establishment in curriculum, instruction and assessment and suitable development of supportive features in policy, venue, facilities, equipment and issues related to gender and equality aspects. The purpose is to achieve an outcome that goes beyond proficiency in sport but aims to achieve a wider perspective for life chance development. For that reason, the process for quality development does not restrict to the year plan for physical education in school or instructional methods used in class. It also relates to the building

of safe environment for education, policy to protect the right of sports and physical education in schools, training and development of personnel, research and collaboration and appropriate measures for inclusion and gender equality in learning. Quality Physical Education (QPE) may then refers to the actions of careful decision in making use of every possible ways to develop a well “planned, progressive, inclusive and supportive learning experience that forms part of the curriculum in early years, primary and secondary education, and in this respect, QPE acts as the foundation for a lifelong engagement in physical activity and sport” (Quality Physical Education Guidelines for Policy Makers, 2015, p.9).

The early attempt to work on QPE could trace back to 1978 when UNESCO proposed the International Charter on Physical Education and Sport (UNESCO, 1978). The Charter marked the beginning of such quality intention for physical education as human right issue and eleven articles to specific its features of development in education, provision of safe venues and facilities, research, professional training and community support. The adoption of diversified elements for use in the quality development of physical education seemed to be “well known facts” for professionals. This understanding was reflected in the UNESCO Report on Quality Physical Education (2005). The report captured these highlights when professionals were invited to discuss the quality issue at Porto Novo in 2005. There were suggestions on various elements as essential criteria in achieving the goal of sound program for physical education if it was the expectation for physical education to meet the wider needs of human growth. The areas discussed at Porto Novo 2005 covered issues from curriculum, instruction to facilities, teachers training and policy for inclusion, cultural and religious constrains, gender equality and even extension of opportunities for learning in physical education. Such understanding eventually lead to the call of joint effort as needed strategy to achieve the quality works of physical education. It was the reason for UNESCO Declaration of Berlin (2013) to highlight the urge work together as “by all concerned stakeholders, including national administrations for sport, education, youth, and health; inter-governmental and non-governmental organizations; sport federations and athletes; as well as the private sector and the media” for quality development of physical education at the 5th International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport (MINEPS V) in 2013. The desire finally lead to the call of actions for UNESCO to propose the Quality Physical Education – Guidelines for Policy Makers in 2015. The document indicated the necessary works on actions by different stakeholders in inclusion, community participation, curriculum flexibility, program evaluation and development of supportive features in physical education and teacher education.

Strategies for QPE

What will be the best strategy to accommodate the diversified needs of development seemed to be the question awaiting for answer. One of the suggested ways to answer this question began from the basic needs of students while learning in physical education and actions taken by country in response to the needed change. The Teaching Games for Understanding (TGfU) proposed by Bunker and Thorpe in 1986 and the reaction to this instructional method in Singapore could provide us with some hints to understand the

possible works towards such establishment. The game model composed of the learning by tactics, thinking skills, decision making and games improvement through execution and observation. This approach created tremendous impact and served as alternative method to achieve the intrinsic learning in students (Allison & Thorpe, 1997; Turner & Martinek, 1992, 1999; Rossi, Fry, McNeill & Tan, 2007; Webb & Pearson, 2008). When Singapore was looking to build the country as the thinking nation, they proposed the adoption of this approach as main method in teaching physical education. The approach was renamed as Games Concept Approach (GCA) in Singapore and suggested to be used in all level of study in school (CPDD, 1999). In order to assist the working of this approach in schools, university served as the training ground for personnel and various researches and studies were carried out. Guidelines in curriculum and exemplars were also developed to assist the working of this approach in school. While reviewing the developmental model from Singapore, it offers ways for us to understand importance of “joint efforts” and “holistic review” of different elements for QPE to develop (Tan, Wright, McNeill, Fry, and Tan, 2002; McNeill, Lim, Wang, Tan and MacPhail, 2010).

Regarding to this holistic understanding, National Association for Sport and Physical Education (NASPE) proposed the National Standard for Physical Education in 2004 and the standard highlighted the interwoven relationship between factors of opportunity to learn, meaningful content, appropriate instruction, professional training and equate support of facilities, environment and equipment. In fact, the attainment of good quality development in physical education was a sum of many improving works and the achievement could not be explained by a single factor. Masurier and Corbin (2006) responded to this QPE issue with ten top reasons to support the implementation of the NASPE standard in a holistic manner. Similar strategy was indicated by Centers for Disease Control and Prevention (CDC) in the Physical Education Curriculum Analysis Tool (PECAT) in 2006. The document attempted to provide guidelines on the four main issues to ensure its success. These issues covered the works on curriculum, policies and environment, instruction and student assessment.

The use of this holistic concept in planning QPE is difficult due to the diversified components involved. The attainment of a good suggestion in teaching physical education requires different backups and these elements act in an interwoven situation. In this way, how to select and prioritize the works from among the many elements will be the essential criteria for consideration. In addressing to this issue, many educational authorities seems to make use of some principles for working. For example, when CDC proposed the report on Strategies to Improve the Quality of Physical Education in 2010, it highlighted the importance of curriculum, instruction, environment building and the initiation for reform works in physical education. Professional were encouraged to start with experimental works and adopt appropriate intervention strategies in physical education class as effective way to enhance the chance of more time on “Moderate to Vigorous Physical Activities” (MVPA) in students. This suggestion indicated a strategy of working from “Small to Big” or from “Experimental to Concrete” before full implementation.

McNeill et al. (2010), in their paper “Moving towards Quality Physical Education:

Physical Education Provision in Singapore”, had indicated the importance of attention on class size, curriculum time and qualification of professional as concerns in reaching the goal of quality physical education. The authors made the references from UNESCO Charter of PE and Sport (1978) to highlight the importance of taking different actions in solving different constraints. The suggestion indicated the work with “Multi-Dimensional Approach” as strategy to tackle different issues. The Curriculum Development Institute of Hong Kong SAR initiated the “Learning to Learn” as reform focus in the 2002 curriculum document. The document indicated clearly with strategies of “progressive steps and gradual changes (p.5)” as ways in achieving the expected goal. Such suggestion indicates the use of Phases” and “Priority” in working for reform.

In Taiwan region and Singapore the developmental issue focused on the “Nine-Years Integrated Curriculum” and “Total Curriculum for the 21st Century Framework of New Character and Citizenship Curriculum” (Ministry of Education, 2003; Ministry of Education, 2014a). Reform in physical education extended to areas such as health, adventure pursuit and life challenging activities in Canada, Australia, New Zealand and China (Australian Curriculum Assessment and Report Authority, 2012; Ministry of Education, 1999; Ministry of Education, 2010; Wang et al., 2011). Strategies for QPE needed to be “Innovative” and “Practical” to meet the different life challenge. Co-curricular concepts for school leisure activities or after school programmes were another common practice to integrate informal and formal learning together in the curriculum of Singapore and Macau SAR (Education and Youth Affairs Bureau, 2012; Ministry of Education, 2014b). The wellness concept, the development of regular exercise habits and the introduction of health and fitness projects were ingredients in Trim and Fit in Singapore, the Fitness Passport in the Taiwan region, Active Kids 123 in Macau SAR, Fitness Award Scheme in Hong Kong SAR and UGOTCHI in Austria (Chang, 1999; Education Bureau, 2014; Ministry of Education, 2014b; Wong and Ho, 2014; UGOTCHI, 2014). These examples indicated the use of strategies to create extra “Space for Learning” or “Extension of Opportunities” as main method for improvement.

When QPE is mentioned, there are many constraints and questions behind the issue. For example, in Singapore, the development of QPE was limited in finding solutions to staffing issues, the inadequate duration for physical education lessons and class size (McNeil et al., 2010). In China, QPE became a dream when it was common to have 50 to 60 students in a single class and 80 students was the norm (Wang and Yao, 2004). The lack of adequate space and equipment in physical education made QPE difficult (Yang et al., 2006). In Bahrain, traditional barriers and parental disapproval served as major causes to discourage girls from participating in physical education lessons and in the Taiwan region, the cultural bias, facilities, equipment and resources were challenges to the development of physical education (Holzweg et al., 2013). Sarwar (2010) mentioned about the physical education development in the industrial city of Gujranwala in Pakistan that the major problem of physical education development was the lack of funds, space, and facilities and the lack of interest of staff, students and parents. Kwanbooncha (2014) in a paper on physical education in Thailand indicated nine factors that created challenges for the teaching of physical education. What will be the best strategies to solve these problems? Can these problems be solved by proper adoption of strategies on use of

concepts from “Multi-Dimensional Approach”, “Priority” and “Phase of Works”, “Innovative Examples” or “Extension of Opportunity in Learning”? How to overcome these hurdles is the message for today’s discussion in this paper.

The QPE Study

The four member associations (ISCPES, IAPESGW, IFAPA & FIEP) of International Committee of Sport Pedagogy (ICSP) (a working group of International Council of Sport Science and Physical Education) decided to launch a research project in 2011 to investigate the issues and framework for QPE. Questionnaires survey was adopted as method in data collection. Teachers in physical education and sport professionals from schools, universities, government agencies and non-government sport organizations such as club coaches and sports management officials were invited to participate in the survey. There were 11 Asian, 7 European and 5 Latin American cities finally participated in the investigation and a total of N=1609 (N=799 in Asia, N=342 in Europe and N=468 in Latin America) questionnaires were received.

The research group made references from NASPE (2004) Quality Physical Education Guidelines, 2005 UNESCO report on Quality Physical Education, ICSSPE 2010 International Position Statement on Physical Education and the preliminary works of ICSP in 2010 on the development of International Benchmarks for Physical Education Systems to develop the questionnaires. The items generated by panel were examined in terms of their clarity and readability. Twenty four items reached an agreement (Table 1). Professional were invited to answer two questions (To what extent do you agree with following statements as basic elements in constructing quality physical education and sport programs for students? and, How far are the following statements being achieved in your country?) and rate the 24 items with 6 point scale ranging from 1 (“strongly disagree”) to 6 (“strongly agree”).

Table 1: Items used in understanding the general perception of QPE

General View Point	Educational Issues		Supportive Issues	
	Expectation	Achievement	Expectation	Achievement
Physical Education is the most effective means of equipping children with the skills, attitudes, values, knowledge	Students should be given opportunities for active learning in physical education lesson	Students are given opportunities for active learning in physical education lessons	The school should have safe and suitable facilities for physical education lesson	All schools have safe and suitable facilities for physical education lessons
Physical Education should be accessible to all children, whatever their ability/disability, sex, age, culture, race/ethnicity, religious, social or economic background.	Positive sport related attitudes and values should form a major focus on learning	Positive sport related attitudes and values are taught and form the major content in learning	The school should have safe and suitable equipment for physical education lessons	All schools have safe and suitable equipment for physical education lessons
	Health knowledge should be regarded as one of the major areas of learning	Health knowledge is regarded as the major content in learning	The School should have safe and suitable environment for physical education lessons	All schools have safe and suitable environment for physical education lessons
	Different types of physical activities and associated knowledge should form the content through which young people learn	Different types of physical activities and associated knowledge form the major content in learning	The Teacher should be qualified to teach physical education	All teachers are qualified to teach physical education
	The teaching and learning of physical education should be fun and enjoyable	The teaching and learning of physical education is fun and Enjoyable	Physical education should be a compulsory subject in school for all children	Physical education is a compulsory subject in schools

	Extension physical activity opportunities, after-school or extra-curricular / co-curricular activities are essential components in helping students to extend their learning experiences in sport and physical activities	Extension physical activity opportunities, after-school or extra-curricular / co-curricular activities are available to all students to extend their learning experiences in sport and physical activities		
--	---	--	--	--

In order to select the items that were internally consistent and obtained with valid measurement for QPE in school, both statistical and empirical techniques were taken into consideration. The 24 items were subjected to descriptive and frequency analysis in groups. By using SPSS 20.00 version, the data were examined in terms of frequency distribution and item discrimination. The analytical parts of three items are now undergoing review and in preparation for publication in journal. As the writing works are still in progress, this paper does not include the calculation as references and any discussion of QPE works in continents. The following table captures the preliminary result of this analysis as references for audience's reading.

Table 2: items excluded due to the low factor loading

	ASIA		EUROPE		LATIN AMERICA
		Item 1	Physical Education is the most effective means of equipping children with the skills, attitudes, values, knowledge	Item 1	Physical Education is the most effective means of equipping children with the skills, attitudes, values, knowledge
				Item 5	The school should have safe and suitable facilities for physical education lesson
				Item 9	Health knowledge should be regarded as one of the major areas of learning
		Item 11	The teaching and learning of physical education should be fun and enjoyable		
		Item 12	Students should be given opportunities for active learning in physical education lesson		
		Item 13	Extension physical activity opportunities, after-school or extra-curricular / co-curricular activities are essential components in helping students to extend their learning experiences in sport and physical activities	Item 13	Extension physical activity opportunities, after-school or extra-curricular / co-curricular activities are essential components in helping students to extend their learning experiences in sport and physical activities
Item 14	Physical education as a compulsory subjects	Item 14	Physical education as a compulsory subjects	Item 14	Physical education as a compulsory subjects
Item 18	All teachers are qualified to teach physical education	Item 18	All teachers are qualified to teach physical education	Item 18	All teachers are qualified to teach physical education
				Item 22	The teaching and learning of physical education is fun and Enjoyable

In current study, the participating cities in Asia were characterized with diversified background but cities in Europe and Latin America were all characterized with either High or Upper Middle Income background. The investment on schools premises, community environment for sport development and curriculum structure were very different to each other. Nevertheless, it was not the intention to discuss the reason of choice for professionals in this paper. It was the interest of this discussion to review the structure of choice. In order to summarize their concerns in a better format for discussion, the following diagram captured such movement in a simplified form to indicate its

relationship. The development of this diagram was based from subjective understanding due to the lack of previous research on QPE. The purpose was to give light to the discussion of ways ahead and future development for QPE in schools. There were five items received the highest loading in this study and as such reason, they were classified as “core elements” in QPE. Seven items received unstable comment which might be caused by previous substantial improving works. They were grouped into “items that require continuous improving works”. Two items earned lowest factor loading and they were regarded as “achieved factors” in QPE.

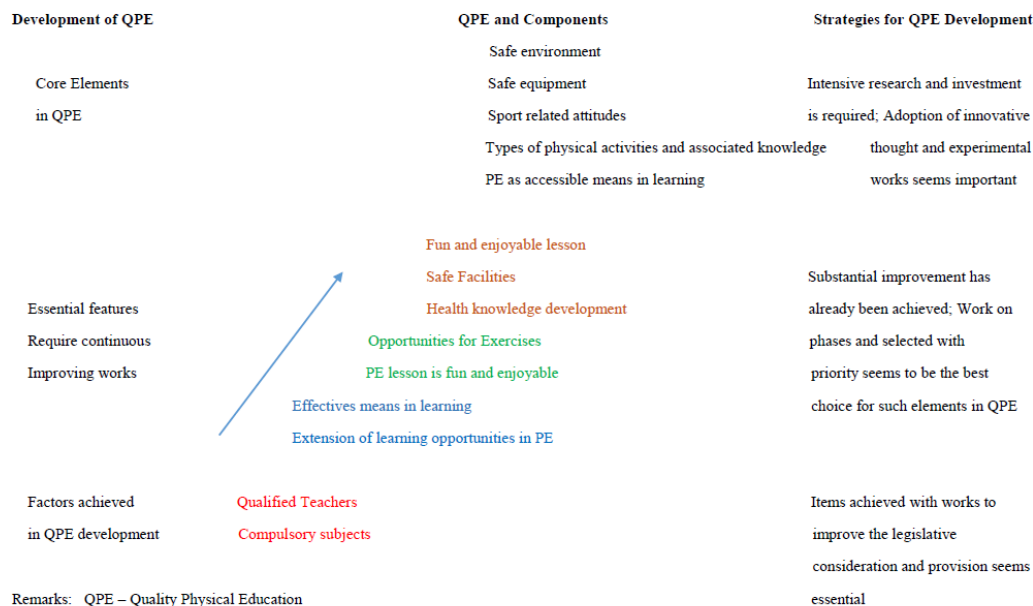


Figure 1: Developmental Chart for QPE

Conclusive Remarks to QPE Study – Ways Ahead and Future Development

In a report by Hardman (2008) in the global survey on physical education, he used the term “a mixed message” to describe the developmental progress. He indicated that national governments passed legislation to turn physical education into a compulsory subject, yet have been slow to translate this legislation into action with proper assurance to protect its quality of delivery. The present study seemed to provide similar echo to this comment. The items on qualified teachers and compulsory study of physical education were the two items excluded in current study due to its low factor loading. It indicated an observation of the well engagement of these two items in QPE but exhibited with unstable concerns to items on supportive development, learning and other educational matters. It was also interesting to learn that although physical education was by far and already a compulsory subject, it did not necessary meant that there were provision of safe environment, facilities and equipment. The extension of learning opportunities seemed to achieve good progress in Europe and Latin America but the opportunities for exercises and accessibility for every student were still in doubt. Physical education was regarded as

effective means in learning but the progress of development in health knowledge, fun and enjoyable lesson, sport related attitudes and types of activities received the concern. Are these issues of real concerns in the development of QPE?

When the word “quality” is the concern of this paper, it suggested to have the building of a well “planned, progressive, inclusive and supportive learning environment” for students. This desire might indicate two different perspectives of development in QPE. Regarding to the core elements, they were the elements with high concern. Introduction of strategies with phases and priority of investment to cater the provision of safe environment and equipment, initiation of innovative ideas with experimental works on development of sport related attitude and curriculum knowledge and establishment of projects to “create space” for participation and engagement in sport and physical activities might be the appropriate option for QPE. While elements on improving edge, these elements were already earned with substantial understanding and achievement in progress. For example fun and enjoyable lesson was the aims of many reform works in physical education. Health knowledge was also identified by many places as the prime concern in education. There were also development of sport projects through different amateur sport agents to compliment the insufficiency in sport learning. For that reason, the best strategy was to maintain the present impact and direct resources to consolidate the presence structure as effective ways to improve the provision of QPE. Do you agree with this suggestions?

Perhaps this is the point and the goal of the present sharing; finding a way out for “good” development of sport and education and the basic scroll of better “quality” development in physical education. Yet, the shift of attention from sport to education, health, leisure and active lifestyle development indicates the need for inclusion with a new perspective in curricula, pedagogical methods, assessments, venue settings, facilities and even policies for physical education. Are we ready or have we prepared for this change and the development of new perspectives for QPE?

Before the close of the discussion, I would like to quote the works of early attempt to discuss the selective structure of reform works in physical education in the book edited by Scheuer, Antala and Holzweg (2014) on issues of quality management and teaching in physical education. The author and the team of QPE reminded the audience to think about of choice that we made on the works in physical education (Ho, D'Amico, Dinold, Benn, Branislav, Wong, Huang, & Holzweg, 2014). Are we making the right choice? Do we make appropriate investment? Are we inventing with good strategies and the best dosage in achieving the goal of quality improvement in physical education? That needs your answer, not the answer from this paper.

References:

- Allison, S. & Thorpe, R.D. (1997). A comparison of the effectiveness of two approaches to teaching games within physical education: A skill approach versus a games for understanding approach. *British Journal of Physical Education*, 28(3), 17-21.
- Australian Curriculum, Assessment and Reporting Authority (2012). *Australian Curriculum: Health and Physical Education – Foundation to Year 10 (Draft for Consultation)*. Canberra: ACARA.
- Bunker, D.J. & Thorpe, R.D. (1982). A model for the teaching of games in secondary schools. *Bulletin of Physical Education*. 18(1), 5-8.
- Centers for Disease Control. (2006). *Physical Education Curriculum Analysis Tool (PECAT)*. Centers for Disease Control: Department of Health & Human Services.
- Centers for Disease Control. (2010). Strategy to Improve the quality of Physical Education. Centers for Disease Control: Department of Health & Human Services.
- Chang, L. (1999). Fitness passports issued to improve health of students. Retrieved from: <http://taiwantoday.tw/ct.asp?xItem=17027&CtNode=122>
- Curriculum Development Council. (2000). *Learning to Learn – The Way Forward in Curriculum Development (Consultation Document)*. Hong Kong: Curriculum Development Council.
- Curriculum Planning and Development Division (CPDD). (1999). *Revised Physical Education Syllabus for Primary, Secondary, Pre-University Levels*. Singapore: Ministry of Education.
- Education and Youth Affairs Bureau (2012). 正規教育課程框架 [Formal education curriculum framework]. Macau: Education and Youth Affairs Bureau (DSEJ).
- Education Bureau. (2014). School Fitness award Scheme. Hong Kong: Education Bureau. Retrieved from: <http://www.edb.gov.hk/en/curriculum-development/kla/pe/references-recources/spdas/index.html>
- Education Commission (1997). *Quality School Education*. HK SAR Education Commission.
- Hardman, K. (2008). Physical education in schools: a global perspective. *Kinesiology* 40 1:5-28.
- Ho, W., D'Amico, R., Dinold, M., Benn, T., Branislav, A., Wong, B., Huang, F. & Holzweg, M. (2014). Quality development and reform in physical education. In Scheuer, C., Antala, B. & Holzweg, M. *Physical Education: Quality in Management and Teaching*. Berlin: Logos Verlag. 30-45.
- Holzweg, M., Ho, W.K.Y., Antala, B., Benn, T., Dinold, M., de D'Amico, R., Saunders, J. & Bumm, K. (2013). Sharing global voice: perception of physical education and school sport worldwide. *International Journal of Physical Education*. L (3), 29-39.
- International Council of Sport Science and Physical Education (2010). International Position Statement on Physical Education. Retrieved from: <http://www.icsspe.org/sites/default/files/International%20Position%20Statement%20on%20Physical%20Education.pdf>
- International Council of Sport Science and Physical Education (2012). International Benchmarks on Physical Education. Retrieved from: <http://www.icsspe.org/system/files/Final%20ICSP%20Benchmarks%20ICSSPE%20Dec%202012.pdf>
- Kwanboonchan, S. (2013). Physical education in Thailand. Retrieved from: <http://www.studymode.com/essays/Physical-Education-In-Thailand-45988440.html>
- Masurier, G. & Cobin, C. (2006). Top 10 reasons for Quality Physical Education. *JOPERD* • 77 (6). 44-53.
- McNeill, M., Lim, B.S.C., Keng, C., Wang, J., Tan, W.K.C. & Ann MacPhail, A. (2010). Moving towards quality physical education: Physical education provision in Singapore. *European Physical Education Review*. 15 (2). 201-223.
- Ministry of Education (1999). *Health and Physical Education in the New Zealand Curriculum*. Wellington: Ministry of Education.
- Ministry of Education (2003). 國民中小學九年一貫課程綱要 – 健康與體育學習領域 [Nine-year junior high school syllabus - health and physical education learning areas]. Taipei: Ministry of Education.
- Ministry of Education (2010). *Health and Physical Education – The Ontario Curriculum (Grade 1 to 8)*. Ontario: Ministry of Education.
- Ministry of Education (2014a). *Information Sheet on 21st Century Competencies*. Singapore: Ministry of Education.
- Ministry of Education (2014b). *Holistic Health Framework*. Singapore: Ministry of Education. Retrieved

- from: <http://www.moe.gov.sg/education/programmes/holistic-health-framework/>
- National Association for Sport and Physical Education. (2004). *Moving into the Future: National Standards for Physical Education (2nd ed.)*. Reston, VA: Author.
- National Center for Education Development. (2000). *Green paper on education in China*. Beijing: National Center for Education Development.
- Rossi, T., Fry, J., McNeill, M. & Tan, C. (2007). The Games Concept Approach (GCA) as a mandated practice: views of Singaporean teachers. *Sport, Education and Society*. 12 (1), 93-111.
- Sarwar, M., Hussain, S., Mehmood, T. & Awan, R.N. (2010). Physical education at secondary school level in Gujranwala. *Asian Social Science*. 6 (11). 120-122.
- Tan, S., Wright, S., McNeill, M., Fry, J. & Tan, C. (2002). Implementating the games concept approach in Singapore schools: a preliminary report. *REACT*. 1, 77-84.
- Turner, A.P. & Martinek, T.J. (1992). A comparative analysis of two models for teaching games: Technique approach and game-centered (tactical focus) approach. *International Journal of Physical Education*, 29(4), 15-31.
- Turner, A.P. & Martinek, T.J. (1999). An investigation into teaching games for understanding: Effects on skill, knowledge and game play. *Research Quarterly for Exercise and Sport*, 70, 286-296.
- UGOTCHI. (2014). UGOTCHI. Austria: SportUnion. Retrieved from: <http://institut-schmelz.univie.ac.at/en/bildung-unterricht-und-bewegungskultur/bildungunderziehung/current-research-and-projects/details>
- UNESCO (1978). *International Charter on Physical Education and Sport*. UN: UNESCO.
- UNESCO (2005). *UNESCO Seminar on Quality of Physical Education and Sport – Final Report*. UN: UNESCO.
- UNESCO (2015). *Quality Physical Education – Guidelines for Policy Makers*. UN: UNESCO.
- UNICEF (2000). *Defining Quality in Education*. New York, NY: United Nations Children's Fund.
- Wang, X. Z., Housner, L., Ji, L., Torsney, C. & Mao, F. (2011). Reform of physical education in China. *International Sport Studies*, 33 (1), 11-27.
- Wang, Y., & Yao, J. (2004). The large class teaching, an unavoidable fact. *Journal of Hebei Education*, 1, 4-5
- Webb, P. & Pearson, P. (2008). An integrated approach to Teaching Games for Understanding (TGfU). Paper presented at the 1st Asia Pacific Sport in Education Conference: Nganyawaiendi Yerthoappendi, Adelaide, 21 January 2008.
- Wong, B. & Ho, W. (2014). Non-Intrude intervention and Active Kid development. Paper presented at the 19th Biennial Conference of ISCPES. Moscow, Russia (27-29, May)
- World Bank (2014). Poor Quality Education Holding Back South Asia. Retrieved from: <http://www.worldbank.org/en/news/press-release/2014/06/30/poor-quality-education-holding-back-south-asia>
- Yang, G., Liu, G. & Ji, K. (2006). The report of the experiment research about the standard of schools' sports place, equipment and facility. *Journal of Chinese School Physical Education*, 3, 2-20.