Health and Physical Education literature review addendum

Senior syllabus redevelopment

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Queensland Government
Queensland Curriculum & Assessment Authority

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For all Queensland schools

Queensland Curriculum and Assessment Authority
PO Box 307 Spring Hill QLD 4004 Australia
Level 7, 154 Melbourne Street, South Brisbane

Phone: +61 7 3864 0299
Fax: +61 7 3221 2553
Email: office@qcaa.qld.edu.au
Website: www.qcaa.qld.edu.au

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Overview of methodology and findings

This addendum to the *Literature review for senior syllabus revisions: Health and Physical Education* was collated from research carried out by officers of the Queensland Curriculum and Assessment Authority (QCAA).

Megatrends in Physical Education, sport and physical activity

Research into sports megatrends identifies six major issues likely to shape the Australian sports sector over the next thirty years. A megatrend is described as an important pattern of social, economic or environmental change (Hajkowicz et. al., 2013). These megatrends are illustrated below in an interlinked and overlapping Venn diagram.

Figure 1: Sport megatrends

Source: Hajkowicz et. al., 2013

There are specific megatrends that have implications to future practice in Physical Education.

Emphasis on individual participation

Individualised sport and physical activities are on the rise. People are scheduling physical activity into increasingly busy and time-fragmented lifestyles to achieve personal health objectives. People are participating more as individuals, rather than commit to participation in a regular, organised sporting event or competition. Participation rates in physical activities such as aerobics, running, walking as well as gym membership have risen sharply over the past decade, while

participation in organised sport has held constant or declined (Standing Committee on Recreation and Sport, 2010).

The rise of lifestyle, adventure and alternative sports

Lifestyle, adventure and alternative sports are particularly popular with young people. These physical activities typically involve complex advanced skills and have elements of inherent danger or thrill seeking (Rinehart, 2000).

More than sport

The literature supports the links between participation in physical activity, sport and an individual's social, mental and physical health. Various studies have indicated that sport can help achieve mental and physical health and social development objectives (Cameron and McDougall, 2000; Schmitz et. al., 2004). At federal, state and local levels, governments are incorporating physical activity to improve community well-being. The future is likely to see an increased focus on the broader benefits of participation in physical activity.

Everybody's game

The demographic and cultural composition of Australia is changing and these changes are impacting on the community's sporting preferences and behaviours. This diversity within the population has changed the types of sports played and how they are played. Although participation rates for sport and physical activity have remained relatively stable for males and females over the past decade, females tend to have higher regular and frequent participation rates in non-organised physical activity (Committee of Australian Sport and Recreation Officials, 2011). The opportunity for inclusion of all people has become an essential element in participation in physical activity.

Sociological trends

Some relevant sociological trends were also identified. Houlihan (2009) has predicted that the globalisation of sport, including the relationship to local and regional sport practices and their impact on issues of personal identity will continue to attract attention.

There is continued critical analysis of the commercialisation of sport, including the role of sponsors, media conglomerates and national and international sports organisations. In addition, there is a revival in interest in social class, and the intersections between gender and cultural heritage in relation to sport and physical activity barriers (e.g. class, gender, age and parenthood).

Houlihan (2009) also identifies the increasing body of research on sport policy and policy-related issues ranging from the use of sport and physical activity to combat social ills such as obesity and

social exclusion to the continuing struggle for resources between high-performance sport and sport for all.

Megatrends in Health

Forecasts for the Health Sector

- The Health sector is currently the biggest employer in Australia with forecast trends continuing to increase to meet the needs of an ageing population.
- Many of the domestic growth hotspots that professional services firm Deloitte identifies in their report *Deloitte Growth 25* result from the collision of health care and ageing, which includes residential aged care, retirement living and leisure, community and personal care, and preventative health and wellness along with the digital delivery of health.
- Health promotion and individual personalised intervention are the forecast key growth areas identified by Leyshon and Turk (2014) in the Det Norske Veritas Germanischer Lloyd (DNV GL) paper *Healthcare in 2050*.
- Health coaches and health service provision in homes will be central to reducing pressure on the hospital system and clinicians.
- Rapid technological advancements at macro and micro scale using sensor and mobile technology monitoring, applications and services will be central to prevention and earlier intervention.
- The use of digital health technology, mobile technology and digital health tools is rapidly expanding. Usage of wearable technologies for improved remote monitoring is also increasing enabling greater access to health services for people in rural communities.

Salutogenic[1] strengths-based approach

The meaning of health has changed significantly since the initial definition by the World Health Organization (WHO) in 1947. Subsequent definitions have included greater complexity of health dimensions and influencing factors; however, a deficit or risk model is still highly prevalent.
The Shape Paper for the Australian Curriculum — Health and Physical Education identified the strengths-based approach as one of the five key underpinning propositions, which McCuaig et al. (2013) note:

> … brings a shift in emphasis that builds strongly on influences from salutogenic health theory positive psychology, health promotion and an assets model of health. McCuaig et al. (2013, p.113)

McCuaig et al. (2013) identified six key requirements to operationalise a strengths-based approach:

[1] *Salutogenesis* is a term coined by Antonovsky (1979), which described an approach focusing on factors that support human health and well-being, rather than on factors that cause disease.

- a focus more so on the promotion of healthy living rather than on preventing illness
- the viewing of healthy living as multi-dimensional and encompassing physical as well as social, mental, spiritual, environmental and community dimensions
- consideration of health as something dynamic, always in the process of becoming
- viewing health as something more and also something else than the absence of disease
- acknowledging humans as active agents, living in relation to their environment
- that health is not regarded as an end goal in itself, but rather as an important prerequisite for living a good life.

> Advocating for a salutogenic-inspired strengths-based orientation for the Australian HPE curriculum is possibly a world first and therefore somewhat 'risky business' in curriculum making … (however) can be considered a contemporary, engaging way to take all learners on a journey of lifelong healthy, active living.' (McCuaig et al., 2013, p.122)

Health literacy

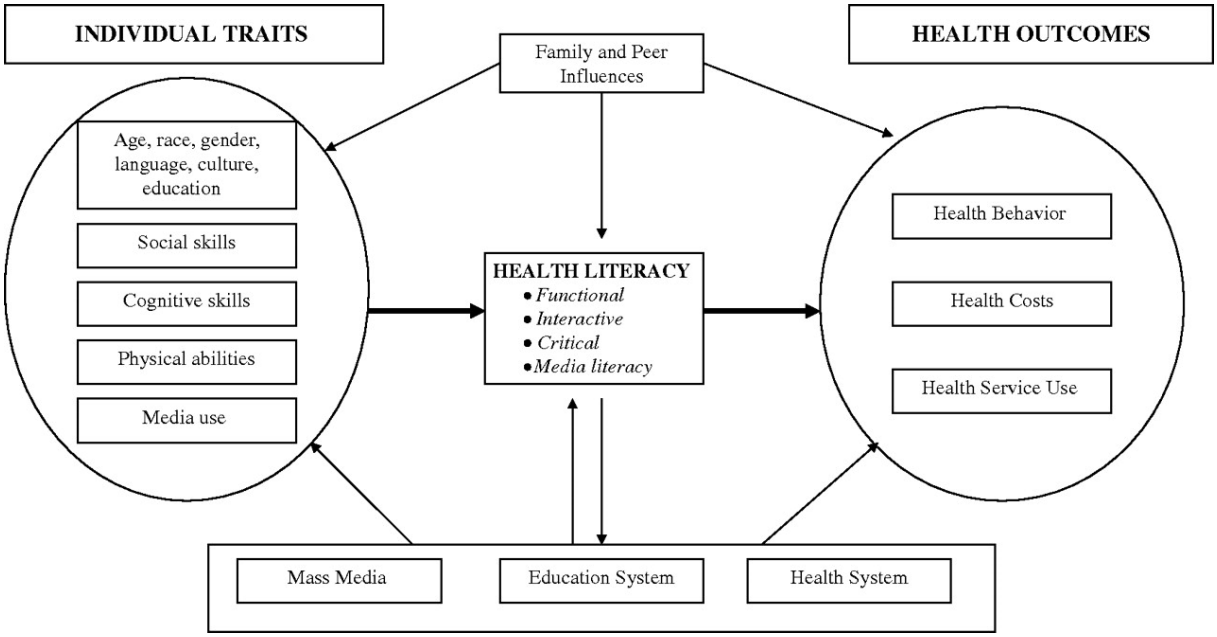
Gaining a clear understanding of what health literacy is and what the outcomes of being health literate are will be crucial if this key underpinning proposition of the Australian Curriculum — Health and Physical Education is adopted in a re-developed syllabus in Queensland. Nutbeam (2008) maintains health literacy '… is focused on the development of skills and capacities intended to enable people to exert greater control over their health and the factors that shape health.' The definition by Sørensen et al. (2012, p. 3) takes a broad approach to defining health literacy. 'Health literacy is linked to literacy and entails people's knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning health care, disease prevention and health promotion to maintain or improve quality of life during the life course.' Freebody and Luke (1990) identified basic/functional, communicative/interactive and critical health literacy as the three distinct levels of health literacy leading progressively to greater empowerment in decision-making and engagement with personal and social action.

Sykes et.al. (2013) concluded the consequences or outcomes of critical health literacy as '… confidence or self-efficacy, improved quality of life, increased social capital, and improved health outcomes.' These outcomes may only be possible if individuals can utilise Marzano and Kendall's (2007) cognitive skills at the knowledge utilisation level rather than the retrieval and comprehension level. Smith (2015) notes:

> Basic health literacy, described as reading and numeracy skills used to understand basic information needed to make appropriate health decisions … is insufficient to affect outcomes. Action is required for outcomes, often sustained and difficult action and critical thinking skills are required to plan action, progress in the face of barriers, and produce desired outcomes. (Smith, 2015, p.1)

Manganello (2007) presented two frameworks for adolescent health literacy from the Institute of Medicine (IOM) report *Health Literacy: A Prescription to End Confusion*, which was also, influenced by the Ecological Model. The IOM report showed the influence of culture and society, the health system and the education system on health literacy and health outcomes. Manganello's framework (Figure 1) expands on the IOM model highlighting health literacy is contributed to by individual characteristics; peer and parent influences; and systems notably education, the media and health care.

Figure 1 A framework for studying adolescent health literacy



Source: Manganello (2007)

Therefore, the development of critical health literacy skills will be central to improving health outcomes for adolescents in the future particularly given the low levels of adult health literacy identified in an ABS study. In 2006, the Adult Literacy and Life Skills Survey (ALLS) measured the literacy of adults aged 15–74 years, including their health literacy. The proportion of people with adequate or better health literacy (41%) was lower than other types of literacy: prose (54%), document (53%) and numeracy (47%) (ABS, 2008) With the rapid expansion and use of health-based technology and the discretionary skills needed to navigate health promotion and social marketing based initiatives, health literacy, as one of the three key underpinning propositions of the *Australian Curriculum — Health and Physical Education*, needs to be incorporated into the re-developed syllabus.

Continuing and emerging trends

International policy change

The United Nations (2015) replaced the Millennium Development Goals with seventeen Sustainable Development Goals in September 2015 as a key outcome of 'Transforming our world: the 2030 Agenda for Sustainable Development'. The Sustainable Development Goals are:

- **Goal 1 No poverty:** end poverty in all its forms everywhere
- **Goal 2 Zero hunger:** end hunger, achieve food security and improved nutrition and promote sustainable agriculture
- **Goal 3 Good health and well-being:** ensure healthy lives and promote well-being for all at all ages
- **Goal 4 Quality education**: ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- **Goal 5 Gender equality:** achieve gender equality and empower all women and girls
- **Goal 6 Clean water and sanitation:** ensure availability and sustainable management of water and sanitation for all
- **Goal 7 Affordable and clean energy:** ensure access to affordable, reliable, sustainable and modern energy for all
- **Goal 8 Decent work and economic growth:** promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- **Goal 9 Industry, innovation and infrastructure:** build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- **Goal 10 Reduced inequalities:** reduce inequality within and among countries
- **Goal 11 Sustainable cities and communities:** make cities and human settlements inclusive, safe, resilient and sustainable
- **Goal 12 Responsible consumption and production:** ensure sustainable consumption and production patterns
- **Goal 13 Climate action:** take urgent action to combat climate change and its impacts
- **Goal 14 Life below water:** conserve and sustainably use the oceans, seas and marine resources for sustainable development
- **Goal 15 Life on land:** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

- **Goal 16 Peace, justice and strong institutions:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- **Goal 17 Partnerships for the goals:** Strengthen the means of implementation and revitalise the global partnership for sustainable development.

National priorities

The Australian Institute of Health and Welfare now lists the National Health Priority Areas (NHPA) as: arthritis and musculoskeletal disorders, asthma, cancer, cardiovascular disease, diabetes mellitus, injuries, mental health, and obesity.

In addition to these NHPAs, the Australian Institute of Health and Welfare's (AIHW) *Australia's Health 2014* (AIHW, 2014. Schools have a great capacity to reduce the burden of disease through a strengths-based approach within the curriculum, which could be contextualised within personal and community health units.

Emerging health issues

Two low profile but significant emerging health issues are: incontinence and oral health.

Incontinence

With one in four Australian adults living with bladder or bowel control problems, incontinence is fast becoming one of our nation's biggest and costliest health issues. Incontinence is more prevalent than anxiety, asthma and arthritis, yet continues to fly under the radar because of the stigma around the issue (Continence Foundation of Australia, cited in The Daily Examiner 2015).

A report by Deloitte Access Economics and the Continence Foundation of Australia (2011) forecast, 'the total number of people with urinary or faecal incontinence or both in 2030 is projected to be 6,217,663', which is a 31% increase and clearly indicative that attention is urgently needed.

A number of studies note '… the negative perception of school toilets is contributing to irregular bladder and bowel habits in children who would rather endure physical discomfort than the psychological and social discomfort of using the school toilet' (Lundblad and Hellstrom, 2005).

A study by Hoarau et.al., (2014) found '34% of students avoided school toilets: 21% never used them to urinate and 85% never used them to defecate. 28% of children acknowledged they had experienced abdominal pain because they couldn't use school toilets and 29% said that they had experienced poor concentration as a result of their pain'. Clearly, a settings-based approach within schools can lead to significant improvement in the bladder and bowel habits of young people.

Oral health

'Changes in diet and behaviour—such as increased consumption of bottled water, sports drinks and soft drinks—may be having some negative impacts on oral health' (AIHW, 2014). This is evident in oral health data that notes '… 62.4% of children aged 8 had experienced decay in their deciduous teeth; on average, every child aged 15 had at least 1 filled permanent tooth, and at least 1 other with untreated decay' (AIHW, 2016). The proportion of children with decay experience in their permanent teeth was 64.1% for children aged 14' (AIHW, 2016).

The lifelong health implications were evident in a study by Sanders (2007) which assessed the social determinants of oral health. 'Adults with lower levels of household income and educational attainment suffered greater tooth loss, greater social impact of oral conditions on quality of life, and worse subjective oral health. Inequalities were exacerbated by reimbursement mechanisms for dental care' (Sanders, 2007). Clearly oral health is a significant emerging health issue.

Implications of these emerging health issues for the re-development of the Queensland H&PE syllabus are:

- The key megatrends salutogenic, strengths-based approach and health literacy can be the key underpinning propositions of the re-developed syllabus and reflected in the rationale. This approach would provide a strong direct link to the Australian Curriculum—Health and Physical Education.
- The study of continuing and emerging health issues from a strengths-based and health literacy approach has the capacity to enable students to develop the skills to critically evaluate current public policy and the provision of health services. Increased knowledge and understanding of the expanding range of allied and complementary health services could also provide a future focus for students. This approach has already proven successful with the development of the organ and tissue transplant unit in consultation with Donate Life, which has been widely adopted within Queensland schools.
- The salutogenic strengths-based approach to continuing and emerging health issues provides a strong connection to Marzano and Kendall's (2007) self-system.

Health Education significant emerging trends

The *Literature review for senior syllabus revisions: Health and Physical Education* described the significant emerging educational trends in assessment for three national jurisdictions (New South Wales, Victoria and Western Australia) and three international jurisdictions (United Kingdom; Ontario, Canada; and New Zealand). This addendum provides additional jurisdiction information from South Australia, Tasmania and the International Baccalaureate along with an expansion of the concepts of hauora that are integral to New Zealand Health and Physical Education curriculum

South Australia Year 11 and Year 12 Health syllabus

Stage 1 (Year 11)

10-credit subject: study at least one core concept and at least one option study

20-credit subject: study at least one core concept and at least three option studies

Core 1: Ways of defining health

Studies in this area could include the following topics:

- Definitions of health
- Indicators and determinants of health
- Various components of health (for individuals and communities)
- Responsibility for health
- Healthy minds and healthy bodies
- Improvement and maintenance of health
- Environment and health
- Health inequities
- Health and well-being
- The 'social body' and its creation (e.g. media, stereotypes).

Core 2: Health literacy

Studies in this area could include the following topics:

- Exploring health literacy and its importance
- Skills needed for health literacy
- Health in all policies
- Factors affecting people's health literacy
- Health literacy and cultural diversity.

Option Studies: Each option study may be approached through one or more topics. The list of suggested topics for each option study is neither prescriptive nor exhaustive. Teachers and students may negotiate appropriate topics that support the study of one or more options.

Option Study 1: Health and Participation in an Active Lifestyle

- Evidence or indicators of health and fitness
- Ways of maintaining an active lifestyle
- Links between health and fitness
- Ways of becoming fit and keeping fit
- The importance of an appropriate level of fitness for personal health
- Current trends in fitness levels in both children and adults
- Barriers to health and physical fitness
- The relationship between an active lifestyle and physical, mental, and emotional health
- Health campaigns and health-promoting lifestyles
- Development of a campaign to promote an aspect of health.

Option Study 2: The Effects of Alcohol, Tobacco, and Other Drugs on Health

- Popular legal and illegal drugs and their effects on personal and community health
- Factors influencing people to take drugs
- The role of the media in promoting or discouraging drugs (e.g. tobacco and alcohol advertising)
- Responsible use of alcohol and other drugs (e.g. at social gatherings)
- Alternatives to drug use
- Harm minimisation and risk management
- Development of a personal risk management plan.

Option Study 3: Health and the Environment

- Ways in which the environment and health are interrelated
- Environments and health in Indigenous communities
- The importance of healthy environments
- Various kinds of environments in which people live (e.g. physical, social, technological, industrial, and family) and their impacts on health
- Environmental sustainability and health

Stage 1 (Year 11)

- Urban planning for the health of individuals and communities.

Option Study 4: Contemporary Health Priorities in Australia

- Australia's current health care policies
- The funding of health care
- Health priorities for Aboriginal and Torres Strait Islander peoples
- The role of the public health care system and access to this system
- The relationship between preventive health care and curative health care
- The role of relevant community agencies, health professionals, and services
- Inequities in health services and reasons for inequity in access to health services
- Contemporary mental health care policies and funding
- The promotion of supportive environments in which healthy choices are easy to make
- Emerging and alternative initiatives in health care.

Option Study 5: Health and Relationships

- The importance of friendships to personal health
- The impact of family relationships on health
- The development and maintenance of support networks and positive, safe relationships
- The availability of support networks at school and in the local community
- Professional relationships and health
- Sexual relationships and health
- Issues that can make individuals feel excluded or isolated
- The building of safe relationships such as friendships, workplace relationships, and family relationships.

Option Study 6: Mental and Emotional Health

- Definitions of mental and emotional health
- Ways of knowing the signs of emotional and mental health
- Positive emotional and mental health strategies
- The relationship between physical activity and physical, mental, and emotional health
- The mental health concerns of adolescents and adults in contemporary society
- The development and maintenance of strategies for caring for the mental health of adolescents and adults
- Current social policies in relation to mental health and equity
- The effects on mental and emotional health of negative behaviour such as bullying and prejudice
- The development of strategies to resolve conflicts such as bullying and workplace harassment
- The development of assertive behaviours to support a positive self-image
- Stress management strategies for coping with change.

Option Study 7: Growing Up Healthy

- Important aspects of positive health care for children, adolescents, and the elderly
- The relationship between physical activity and health
- Barriers to children growing up healthy
- Evaluation of the obesity epidemic and some of the factors behind it
- The relationship between diet and growing up healthy
- Child protection
- The development of identity over time
- Identities and various roles and relationships, such as sister, brother, friend, boyfriend, girlfriend, employee, adolescent, and partner
- The influence of particular environments on growing up healthy
- The role of heredity in being healthy
- The role of sexual education and sexual health in general health.

Stage 1 (Year 11)

Option Study 8: Careers and Vocational Studies in Health

- Health professionals, community agencies, and careers in health
- Careers in alternative health care
- Holistic health care
- Allied health services
- The development of skills for careers in health
- Careers in health promotion and disease prevention
- Psychological health issues in the workplace
- The promotion and maintenance of safety, fairness, and equity in the workplace
- The role of occupational health and safety in the workplace
- The skills and competencies needed for effective first aid.

Stage 2 (Year 12)

10-credit subject: Study at least one core concept and at least one option study

20-credit subject: Study at least one core concept and at least three option studies

Core Concept 1: Health Literacy

Studies in this area could include the following topics:

- definitions and meaning of critical health literacy
- reasons for the importance of critical health literacy for individual and community health
- development and application of critical health literacy
- critical health literacy and Indigenous communities
- ways of accessing and interpreting health information through health literacy
- how health literacy can help in understanding issues related to and concerns about personal and community health
- knowledge as a core aspect of health
- education and the improvement of health literacy
- health literacy as an important determinant of health and access to health services
- improvement of health literacy in the community
- health literacy and cultural diversity.

Core Concept 2: The Social and Economic Determinants of Health

Studies in this area could include the following topics:

- priority areas of action and major initiatives in health promotion in Australia
- major global health initiatives
- public action taken by funded and voluntary groups to support priorities and actions in health care
- the impact of alternative and emerging initiatives in health care on individuals and communities
- the role of the World Health Organization
- the importance of community action in recognising and responding to social justice issues and diversity in health matters
- the current state of health in Indigenous communities across the world
- ways in which people in all communities can understand and access new practices in health care
- ways of analysing a health issue and exploring its possible determinants.

Option Studies: Each option study may be approached through one or more topics. The list of suggested topics for each option study is neither prescriptive nor exhaustive. Teachers and students may negotiate appropriate topics that support the study of one or more options.

Option Study 1: Health Promotion in the Community

- The importance of promoting health in the community
- Health promotion and behavioural change
- Reasons for behavioural-change models of health promotion targeted at individuals, and the effectiveness of such models
- The strengths and limitations of alternative approaches to health promotion
- Health promotion campaigns that lead to long-term sustainable health outcomes

Stage 2 (Year 12)

- The differences between preventive and curative health strategies
- Community programs that support the health care of children
- Ways in which current health awareness-raising programs improve the health of communities and individuals
- The role of the media in health promotion
- The impact of advertising on individual and community health
- The importance of schools in promoting health
- The effectiveness of campaigns such as Quit
- The effectiveness of health awareness-raising days
- The importance of school canteens in promoting and maintaining good health
- The impact of ethical research on improving the health of communities and individuals
- Evaluation of the effects of the harm minimisation philosophy on the health of young people compared to a zero-tolerance philosophy.

Option Study 2: Health and Environment

- Ways in which different kinds of living environments affect the health of individuals and communities
- Ways of being proactive in supporting and maintaining environments that promote good health
- Access to healthy environments
- The effects of environmental infrastructure on personal and community health and well-being
- Interventions to change environmental aspects that promote ill-health
- Ways in which the home, school, and wider community environments promote healthy living
- Ways in which people can reduce their ecological footprints
- The importance of the relationship between technology, the environment, and health
- Personal and group strategies for dealing with environmental health issues
- Evaluation of current health policies and strategies and the ways in which these are developed
- The significance of the organic food movement
- The role of concepts such as ‘food miles’ in promoting the health of individuals and communities
- The impact of fast food on the health of individuals and groups in communities.

Option Study 3: Sexuality and Health

- The formation and development of sexual identity
- The influence of factors such as gender construction, stereotypes, role models, peer-group pressure, the media and literature, culture, gender, family and personal experience, and homophobia on personal and community health
- The role of gender in maintaining health
- Ways in which societies and cultures construct sexual identity and sexual relationships
- Representation of the diversity of sexual relationships (e.g. heterosexuality, homosexuality, bisexuality, and transsexuality) in society
- Ways of exploring sexual relationships from a range of perspectives
- The effects of sex-role stereotypes and role models on young people
- Peer pressure and sexual identity
- The expression of sexual identity through cultural and social values
- The definition and practice of sexual safety
- The connection between sexuality and relationships
- The importance of the role of non-sexual relationships in promoting individual health and well-being
- The role of monogamy in contemporary society.

Option Study 4: Health and Relationships

- The importance of relationships to health
- Healthy management of the emotional aspects of relationships
- Media images and stereotypes of relationships and their effects on individual and community health
- The rights and responsibilities involved in relationships

Stage 2 (Year 12)

- The relationship between individual respect and health
- Effective relationship communication skills and their links to good health
- The role of power in relationships
- The characteristics of positive relationships
- Coping mechanisms for beginning, changing, and ending relationships
- Skills for developing resilience
- The development and fostering of a range of relationship skills, such as the ability to work in a team.

Option Study 5: Risks and Challenges to Health

- Common challenges and risks to the health of young people and their overall impacts on personal and community health
- Analysis of common perceptions of health risks compared to actual data
- The influence of income, location, occupation, and education on health
- The legal and social implications of risks taken by young people (e.g. drink-driving, speeding, drug-taking, smoking, and violent behaviour)
- Analysis of the causes of the obesity 'epidemic'
- Analysis of the media construction of health crises
- Ways of dealing with sexual harassment, discrimination, sexual violence, and assault
- Current community attitudes towards physical and sexual violence as depicted in the media
- The responsibilities of individuals and communities to be proactive in the area of health
- The interrelationships of health issues
- Personal and community attitudes to depression, and youth suicide
- The maintenance of physical fitness
- The role of an active lifestyle in maintaining good health
- The impact of technology on individual and community health.

Option Study 6: Stress and Health

- The nature of physical and emotional stress
- The physical and emotional symptoms of stress
- The relationship between work and stress
- The relationship between lifestyles and stress
- Ways of being proactive in reducing or preventing stress and promoting personal well-being
- Positive ways of communicating and working with people who have differing values, beliefs, and lifestyles
- The roles of bullying, discrimination, and harassment in causing stress
- Positive ways of dealing with bullying, discrimination, and harassment.

Option Study 7: Vocational Studies and Applications in Health

- The skills and competencies needed for senior first aid
- Safety issues associated with the physical environment in the management of first aid, and protective practices that should be observed
- Legal and ethical issues in the administration of first aid (e.g. occupational health, safety, and welfare legislation and litigation)
- Systems in the workplace for managing occupational health, safety, and welfare legislation to support the health of workers
- The qualifications necessary for various health occupations (e.g. social workers, masseurs, natural therapists, personal trainers, chiropractors, physiotherapists, and childcare and aged-care workers)
- Effective programs and promotions designed to change attitudes in the workplace (e.g. manual handling and back care, protective equipment to reduce hearing loss, and protective clothing)
- The development of teamwork skills that contribute to productive working relationships and outcomes
- The development of communication skills that contribute to productive and harmonious relationships between employees and customers
- Rehabilitation programs for helping people with work-related injuries.

Tasmania

Organisation, scope and assessment
The HLT315108 Health Studies syllabus has elements that are comparable to the Queensland course; however, the Tasmanian course is undertaken as a one-year course of study. The course is assessed internally against seven criteria with five of those criteria also being assessed externally through a three-hour examination of short and extended responses. The course incorporates the personal, Australian and global perspectives of health and includes: • the physical, social, emotional and spiritual elements of health and how they are related • indicators of 'good health' • health choices (including drugs and sexuality issues) and risk taking • health of Australians and the factors influencing health • National Health Priority Areas and Australia's health care system • global health with regard to less developed and more developed countries • Millennium Development Goals, primary health care and foreign aid • groups of people experiencing health inequalities • how the media and community respond and shape health issues • the impact of technology on the health of individuals in the 21st century.

International Baccalaureate

Organisation, scope and assessment
Sports, Exercise and Health Science is a Group 4 subject within the International Baccalaureate Diploma Program and as such has a largely science context which is not comparable to the QLD Health Education course but may be of relevance to Physical Education and Biology. The course incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition, which are studied in the context of sport, exercise and health. The health specific knowledge includes: • Core: One of the six topics (Nutrition) has some relation to health although the key context is science based. • Core (Nutrition): This is a macro and micronutrient form and function unit hence why this subject sits in the Group 4 Sciences suite of subjects. Options: Two of the four options have some relevance although the key context is still science based. • Option C: Physical activity and health: (1) Hypokinetic disease; (2) Cardiovascular disease; (3) Physical activity and Obesity; (4) Physical activity and type 2 diabetes; (5) Physical activity and bone health; (6) Prescription of physical activity for health; (7) Exercise and psychological well-being. • Option D: Nutrition for sport, exercise and health: (1) Digestion and absorption; (2) Water and electrolyte balance; (3) Energy balance and body composition; (4) Nutritional strategies. The Group 4 project is a collaborative activity where students from different Group 4 subjects work together on a scientific or technological topic, allowing for concepts and perceptions from across the disciplines to be shared. The project can be practically or theoretically based.

New Zealand Health and Physical Education

The literature review 1.4 Recommendation 3 notes: 'The use of the principle of 'Hauora' - an approach to total health or wellbeing is a defining feature of the New Zealand program. It includes physical, mental and emotional, spiritual, and social health and wellbeing. It is likened to the four walls of a 'Whare' (a meeting house). It is distinctly Māori and therefore unique to New Zealand/Aotearoa.'

Ministry of Education Te Kete Ipurangi (1999) Health and Physical Education curriculum uses four concepts to provide the framework for learning.

Socio-ecological perspective

'People can take part in the health promotion process effectively only when they have a clear view of the social and environmental factors that affect health and well-being. The socio-ecological perspective will be evident when students:

- identify and reflect on factors that influence people's choices and behaviours relating to health and physical activity (including social, economic, environmental, cultural, and behavioural factors and their interactions)
- recognise the need for mutual care and shared responsibility between themselves, other people, and society
- actively contribute to their own wellbeing, to that of other people and society, and to the health of the environment that they live in.' (Ministry of Education Te Kete Ipurangi ,1999)

Wellbeing (hauora)

Wellbeing encompasses the physical, mental and emotional, social, and spiritual dimensions of health. This concept is recognised by the World Health Organization:

- Hauora is a Māori philosophy of health unique to New Zealand. It comprises taha tinana, taha hinengaro, taha whanau, and taha wairua.
- Taha tinana or physical wellbeing relates to the physical body, its growth, development, and ability to move, and ways of caring for it.
- Taha hinengaro or mental and emotional wellbeing involves coherent thinking processes, acknowledging and expressing thoughts and feelings and responding constructively.
- Taha whanau or social wellbeing involves family relationships, friendships, and other interpersonal relationships; feelings of belonging, compassion, and caring; and social support.
- Taha wairua or spiritual wellbeing includes the values and beliefs that determine the way people live, the search for meaning and purpose in life, and personal identity and self-awareness. For some individuals and communities, spiritual well- being is linked to a particular religion; for others, it is not.

- Each of these four dimensions of hauora influences and supports the others. (Ministry of Education Te Kete Ipurangi, 1999)

Health promotion

Health promotion is a process that helps to create supportive physical and emotional environments in classrooms, whole schools, communities, and society. The health promotion process requires the involvement and collective action of all members of the wider school community — students, staff, parents and caregivers, and other community members.

By engaging in health promotion, students and teachers can:

- come to understand how the environments in which they live, learn, work, and play affect their personal wellbeing and that of society
- develop the personal skills that empower them to take action to improve their own wellbeing and that of their environments
- help to develop supportive links between the school and the wider community
- help to develop supportive policies and practices to ensure the physical and emotional safety of all members of the school community.

Health promotion encourages students to make a positive contribution to their own wellbeing and that of their communities and environments. The health promotion process described in this curriculum is derived from the World Health Organisation's Ottawa Charter. (Ministry of Education Te Kete Ipurangi, 1999)

Attitudes and values

Programmes in health and physical education contribute to the well-being of individuals and society by promoting the attitudes and values listed below. Through their learning in health and physical education, students will develop a positive and responsible attitude to their own physical, mental and emotional, social, and spiritual wellbeing that includes:

- valuing themselves and other people
- a willingness to reflect on beliefs
- the strengthening of integrity, commitment, perseverance, and courage.

They will develop respect for the rights of other people, for example, through:

- acceptance of a range of abilities
- acknowledgment of diverse viewpoints
- tolerance, rangimarie, and open-mindedness.

They will develop care and concern for other people in their community and for the environment through:

- cooperation and awhina
- applying aroha, manaakitanga, care, compassion, and mahi a ngakau
- constructive challenge and competition
- positive involvement and participation.

They will develop a sense of social justice and will demonstrate:

- fairness
- inclusiveness and non-discriminatory practices (Ministry of Education Te Kete Ipurangi, 1999).

Implications for the revision of the Queensland Health Education syllabus

The most comparable jurisdiction that is worthy of consideration is South Australia. A key difference is the SACE external assessment format, which is an investigation similar to the Queensland Health Education Action Research Projects.

Sports coaching in Physical Education

Given significant advances in coaching education and research, this area of Focus Area A may need additional content added. *Models of coaching* are currently listed as Extension subject matter. Requiring students to elect a role as coach or performer during the assessment of physical performance, as evidenced in the UK A-levels courses, would create opportunities to demonstrate highly sophisticated and highly integrated knowledge from two different perspectives.

Sport Education (Siedentop, et.al., 1994) is a curriculum and instruction model used in a number of jurisdictions. This model is designed to provide students with authentic experiences where students adopt different roles, including coaching, team selection and officiating to facilitate a ‘season’ of sport. Some aspects of this model could inform coaching education.

Additional information included in summary of recommendations

Contemporary skill acquisition theory in Physical Education

The *Literature review for senior syllabus revisions: Health and Physical Education* identifies a more contemporary construction of motor learning to more accurately explain the infinite combinations of performer, task and environment as skilled and intelligent performance. Davids et.al. (2008) propose five key identifying features of skilled performers: functional efficiency depicted as effortless, smooth action; internal and environmental timing precision; consistency of co-ordinated movement in increased pressure ratios or increased competition; randomised solutions that are generated in response to a particular set of conditions and; flow, form and dynamic balance that is graceful to watch.

Traditional motor skill learning theories would probably not be in disagreement with these five qualities describing skilled movement, but as Smith (2013) suggests the internal processing models, or traditional models, that are privileged in physical education teaching, simplify skill learning as mastery of movement patterns stored as motor schema applied to the environment and performance context.

Traditional concepts such as ‘closing down’ the environment for the performer reduces the number of situational cues that the learner needs to consider at one time. In contrast, skilful movement is more highly complex, relational between multiple variables at multiple bodily levels and demands a more contemporary understanding.

Physical literacy and Physical Education

David Kirk (1983) first presented the idea that physical education should develop intelligent performance. Kirk commented that there is more to games than simply knowing facts or being able to reproduce a series of skills. He described students’ capacity to not only become skilful at the mechanics and techniques of games, but to be able to select a skill and use it an appropriate time to ‘read’ a game. As a result, Kirk distinguished between competent and intelligent performance. He described an intelligent performer as one who can accommodate both the familiar and unfamiliar.

Physical literacy is a term that has gained popularity in recent years. A variety of organisations and individuals have adopted and promoted the use of the term internationally. There are increasingly divergent views about the use of this term (Corbin, 2016). Some researchers argue that the term *physical literacy* can be used interchangeably with the term *Physical Education*

(Lounsbery and McKenzie, 2015). They suggest that there is limited evidence within peer-reviewed research to support the use of this term.

Whitehead (2001) analysed the concept of physical literacy. Physical literacy is defined as '*the motivation, confidence, physical competence, understanding and knowledge to maintain physical activity at an individually appropriate level, throughout life*'.

The core components of physical literacy (Whitehead, 2001 and 2010) are as follows:

- The physically literate person will move with poise and grace, with economy of movement and with confidence within a wide range physically challenging situations.
- The physically literate person will be able to read the situation, predict or anticipate what is likely to happen next as a situation unfolds, reacting in an appropriate manner, within a wide range of physically challenging situations.
- The physically literate person has the knowledge, skills attitudes and motivation to fully use their capacity and potential for movement.
- The skills developed by a physically literate person will be appropriate to their own local culture, and be based on their limits to their movement potential or their ability or physical ability.
- The physically literate person will have a well-established sense of self.
- The physically literate person will have a high level of self-confidence and self-esteem that comes from confidence in their body and its abilities.

The concept of physical literacy aligns closely with the discussion within the Rationale of the current Physical Education syllabus (QSA, 2010) and may be used to inform discussion within the rationale of new QCAA Physical Education syllabus (2016).

Integration of physical performance in Physical Education

Arnold (1979) developed three dimensions of movement and these have remained prominent in curriculum development in a number of jurisdictions, including Victoria, Western Australia and explicitly developed in Queensland. The Arnoldian dimensions provide movement as a framework for inquiry and 'ways of knowing'. This framework has been is strongly supported within the literature review, but further discussion is provided within the addendum to assist curriculum writers.

The conceptualisation is described briefly below:

- Learning 'about' physical activity refers to inquiry, where students directly acquire knowledge and understandings as a result of studying and participating in physical activity, for example,

examining the impact of gender stereotypes on participation in physical activity and planning psychological strategies for pre-match preparation (Brown and Penney, 2012).

- Learning 'through' physical activity refers to outcomes where students indirectly acquire understandings, capacities and attitudes as a result of studying and participating in physical activity including, for example, increased physical fitness, aesthetic appreciation of a performance, continued participation in a physical activity (Brown and Penney, 2012).
- Learning 'in' movement refers to experiential outcomes, where students directly acquire knowledge, understandings and skills as a result of thoughtful participation in physical activity, for example, applying tactics and strategies in a game, appraising the physical capacities and requirements of an activity' (Brown and Penney, 2012).

Arnold (1979) discussed the importance of the inter-connectedness of these dimensions. He contended that, 'It should be stressed that these three dimensions of movement are not mutually exclusive. On the contrary they overlap and interrelate with one another' (p. 106). While Arnold clearly distinguished each of the dimensions, he emphasised their inherent inter-dependency. They are, in his words, '… conceptually discrete but functionally related. Each dimension is not exclusive of the others, but overlaps and merges into them' (Arnold, 1979 cited in Brown and Penney, 2012).

Recommendations

Recommendation 1: Physical Education — efficacy of Figueroa's framework

Teaching and learning in Focus Area C of the current syllabus, using Figueroa's framework as a tool to examine the sociocultural factors influencing equity and access to sport and physical activity in Australian society may be worthy of review. A number of jurisdictions examine sociological issues from a wider context, compared with the current Queensland syllabus.

An alternative sociological framework may be of more value though models can be rigid in their interpretation. Figueroa's framework does resemble some of the ecological models in health so perhaps a preferred position here would be to consider more than one model. The Ottawa Charter for Health Promotion may be a useful support model to advocate for change related to issues concerning access and equity in participation. This focus on social justice issues links with the intent of the Health Education syllabus (2010). The skills of advocating, enabling and mediating could be used to support students in the evaluation, prediction and justification of probable and possible outcomes of actions, plans and decisions.

Houlihan (2009) has predicted that the globalisation of sport, including the relationship to local and regional sport practices and their impact on issues of personal identity will continue to attract attention.

There is continued critical analysis of the commercialisation of sport, including the role of sponsors, media conglomerates and national and international sports organisations. In addition, there is a revival in interest in social class, and the intersections between gender and cultural heritage in relation to sport and physical activity barriers (e.g. class, gender, age and parenthood).

Houlihan (2009) also identifies the increasing body of research on sport policy and policy-related issues ranging from the use of sport and physical activity to combat social ills such as obesity and social exclusion as well as the continuing struggle for resources between high-performance sport and sport for all.

A number of jurisdictions examine sociological issues from a broader context, compared with the current Queensland syllabus.

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