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Health literacy and the school curriculum: The example of Finland

Olli Paakkari and Leena Paakkari

Introduction

The education system has been recognised as a central arena for developing children's health literacy (Nutbeam, 2000; St Leger and Nutbeam, 2000; Begoray et al, 2009; Paakkari and Paakkari, 2012). Schools reach almost all children, and there is a link between high health literacy and positive health outcomes (Volandes and Paasche-Orlow, 2007; Berkman et al, 2011). Thus, there are good grounds for anticipating that the acquisition of health-related competencies at school can decrease health disparities among children. This would be a clear public health benefit, but above all, it is a question of ethics (Paakkari and George, 2018). If health literacy becomes part of the school curriculum, it has the potential to guarantee that *all* school-aged children will be able to learn the competencies they need to take care of their own health and the health of others.

Health literacy has been adopted into the school curriculum of several countries, including the Czech Republic (Hrivnová, 2016), Australia (Macdonald, 2013), and Finland (Finnish National Board of Education, 2014). One of the first countries to adopt such a curriculum was the US. There, the introduction of *National health education standards* in 1995 meant that health literacy was seen as a competence allowing the individual to be a critical thinker and problem-solver, a responsible and productive citizen, a self-directed learner and an effective communicator (Joint Committee on National Health Education Standards, 1995; see Chapter 2, this volume). This set of competencies corresponds well with the most recent health literacy definitions (see, for example, Paakkari and Paakkari, 2012; see also Chapters 1 and 3, this volume), and with the key competencies identified and defined by the Organisation for Economic Co-operation and Development (OECD, 2005), with a view to ensuring that citizens can meet the demands of society. According to the OECD (2005), in order for a competence to be considered 'key', it has to 'contribute to valued outcomes for societies and individuals; help individuals meet important demands in a wide variety of contexts; and be important not just for specialists but for all individuals' (2005, p 4). Following this line of argument, one can readily view health literacy as an important competence for citizens: after all, it contributes to positive health

outcomes both at the individual and societal level, helps people to cope with and modify the factors that influence their own and others' health, and is relevant for every citizen. Moreover, as also argued in this chapter, the establishment of school-based learning standards for health literacy may assist in tackling health disparities (Parker et al, 2003).

The identification of health literacy learning standards – which can be regarded as criteria for a qualification in health literacy – responds to the qualification function of education (see Biesta, 2010). It can be argued that one of the main purposes of education is to qualify pupils with the competencies they need in a particular society; indeed, this function is 'one of the major functions of organised education and is an important rationale for having state-funded education in the first place' (Biesta, 2010, p 20). This function is clearly linked to assessments of how far pupils meet the criteria defined in a given curriculum.

This chapter focuses on how health literacy is addressed within the current Finnish national basic education core curriculum. A particular focus is on describing health education as a school subject, its learning objectives and its assessment principles.

Evolution of Health Education as a subject

The move towards a stand-alone subject

The teaching of health issues has always had a central place in the Finnish school curriculum. Over 100 years ago (in 1913) the subject called 'Hygiene and temperance education' was officially introduced in schools, although health issues had been taught long before that (Korhonen, 2007). Until 2001, Health Education was taught as part of Physical Education, although it formed a separate entity in terms of content. Health topics were also integrated with other school subjects, notably Civic Education, Home Economics and Biology (Korhonen, 1998, p 35). In addition to curriculum-based Health Education activities, whole-school approaches were applied in schools, especially during the late 1990s (under the title of 'Health-Promoting Schools'). These offered possibilities for pupils to learn and experience health issues in a holistic manner.

In 2001 two acts were ratified, namely, the Act on Basic Education and the Act on the Upper Secondary School. Now, Health Education became an independent and obligatory school subject in basic and upper secondary schools. In the Government proposal (Hallituksen esitys) of 2000, two main justifications were given for this educational reform. In the first place, negative changes in pupils' health and health behaviours had been observed. These included an increase in various ailments and disorders (for example, neck and shoulder pain, daytime sleepiness, depression) and in the use of alcohol. Within the proposal it was argued that since the school is an educational institution that can reach nearly all children at their most impressionable ages, it could help to decrease health inequalities. Second, current health teaching was seen as inadequate for developing pupils'

skills regarding their own safety, and insufficient for promoting life management and citizenship. The integration of health issues with other subjects had not been successful. In addressing these problems, it was proposed that there should be teaching on various distinct entities, and that relevant teaching objectives should be clearly defined. Only then, it was argued, could teaching in this domain become more effective (Hallituksen esitys, 2000).

At the time when the Government proposal was set out there was favourable momentum for such an educational initiative. Large-scale surveys had reported parallel findings in terms of pupils' health and health behaviour (see, for example, Lintonen et al, 2000). Furthermore, various stakeholders such as the Ministry of Education, universities and health institutes had arrived at a consensus on the current state of pupils' health and wellbeing, and on the teaching of health issues in schools. The time was ripe for the ratification of the law, and for the introduction of a new school subject.

In August 2004, schools at a basic level were able to introduce Health Education as a new, independent school subject. Now, in grades 1-6, it was taught as an independent component of Science, and from grades 7 and upwards, it was taught as a stand-alone subject. Furthermore, the status of Health Education was strengthened in upper secondary education.

Development process of the national core curricula

The most recent Finnish national curriculum for basic education was introduced in 2016. The reform process took four years. It started in 2012, when the Finnish government confirmed the subjects to be taught, and the overall distribution of lesson hours, both in basic education and in upper secondary education. The drafting of the core curriculum – including the Health Education curriculum – was organised by the Finnish National Board of Education. It was set up to be partnership-based and highly transparent. The draft of the core curriculum was created by several multidisciplinary working groups, supported by online consultation groups. In 2012, general guidelines for the entire curriculum were created, and in the following year the subject-specific groups started their work. The group that outlined the Health Education curriculum consisted of health education subject teachers, school principals, scientists and educational experts. During the curriculum reform process the National Board of Education asked for feedback three times. The feedback was collected via a website, and was open to everyone. Education providers and parents were particularly encouraged to provide their comments on the draft of the curriculum.

During the autumn of 2014, various key stakeholders (for example, teacher associations, municipalities, universities, health associations) were able to give their official opinions. This open and participatory reform process ensured that the voices of the various parties were heard, the overall aim being to share power in deciding the content of the curriculum. However, the final decisions were made by a select group of people, based on their visions of what the focus should be

in the subject of Health Education. Hence, the Health Education curriculum is not (and never will be) based on a purely neutral agglomeration of knowledge (see Apple, 1993). The new national core curriculum was accepted in December 2014. It includes the objectives and contents of different subjects, the underlying learning concept, plus guidelines to promote the welfare of students. It also encompasses assessment principles and education for special needs.

Starting in August 2016, the new core curriculum has been implemented in schools for grades 1-6. Between 2017 and 2019, the new curriculum will be put into operation for grades 7-9, on a step-by-step basis. Schools can decide how they will divide the lessons per year between the various grades. However, it has been shown that if the lessons are evenly distributed, this produces better learning on health issues (Summanen, 2014).

Towards a competence- and phenomenon-based curriculum

Many factors made it necessary to revise the core curriculum in Finland. These included rapid changes in society and the world, relating to environmental issues, ever-increasing globalisation and rapid technological development. The goal of the curriculum reform was to ensure that the pupils could achieve competencies that would meet the requirements of present and future society, both nationally and internationally. This called for a shift away from a focus on specific contents towards a focus on broader phenomena, and the competencies relating to these.

In Health Education, one intention was to identify phenomena that would not merely be broad, but also complex and tightly rooted in real-life contexts and challenges. For grades 7-9 the following three phenomena were identified: (1) individual growth and development; (2) key resources for health; and (3) the contribution of the community and society to health. These broader phenomena were linked to certain corresponding competencies. Here, health literacy served as a theoretical framework for defining and describing the set of competencies (described in more detail below). Furthermore, the new national core curriculum stated that in the teaching of various subjects it was necessary to take into account the following cross-subject competencies: thinking and learning to learn; cultural competence, interaction and self-expression; taking care of oneself and managing daily life; multiliteracy; ICT competence; working life competence and entrepreneurship; and participation, involvement and building a sustainable future. These were to be addressed in the teaching of subjects such as Health Education. Cross-curricular activities were required here also. In line with this, the national curriculum required schools to describe in detail 'multidisciplinary learning modules'. These are larger projects or courses, focusing on a selected phenomenon or theme, and connecting the key objectives of the different subjects (Finnish National Board of Education, 2014). In line with this, the current Health Education curriculum represents a competency-based curriculum since it is designed around a set of cross-curricular and subject-bound competencies and not round a list of contents (see UNESCO IBE, 2013, pp 12-13).

Health literacy as a theoretical framework for the Health Education curriculum

At the time of the recent curriculum reform, *health literacy* was adopted as the term covering the teaching objectives and learning criteria for the subject of Health Education. In fact, the concept had also been identified in the previous basic education curriculum (Finnish National Board of Education, 2004), but it was now more explicitly described and applied. A theoretical framework for the conceptualisation of health literacy was developed by Paakkari and Paakkari (2012). According to their view, health literacy develops through learning. They define that health literacy comprises a broad range of knowledge and competencies that people seek to encompass, evaluate, construct and use. They argue that health literacy enables people to understand themselves, others and the world in a way that will enable them to make sound health decisions, and to work on and change the factors that constitute their own and others' health chances (cf Zarcadoolas et al, 2005; Abel, 2007; Paakkari and Paakkari, 2012, p 136). Health literacy does not focus merely on information located 'out there'; it also concerns information situated within oneself as an individual. Hence, health literacy enables us to 'become literate about ourselves and the broader context we are part of' (Paakkari and Paakkari, 2012, p 136).

According to the core curriculum (Finnish National Board of Education, 2014), the overall aim of Health Education in grades 1–9 is to support the development of health literacy in a versatile manner. The teaching objectives, and the learning criteria, are divided according to the core components of health literacy, namely, theoretical knowledge, practical knowledge, self-awareness, critical thinking and citizenship (Paakkari and Paakkari, 2012) (see Box 34.1). These components are to be addressed in grades 1–9 (see Tables 34.1–34.3). This implies that they are equally important for pupils, regardless of age; they can and should be developed throughout the school system, but in an age-appropriate manner.

Box 34.1: The core components of health literacy

The five core components of health literacy

The *theoretical knowledge* of health issues encompasses a range of principles, theories and conceptual models. Knowledge is viewed as something explicit, factual, universal, formal and declarative. It includes lower levels of thinking skills, such as remembering.

Practical knowledge (that is, procedural knowledge, skills) can be seen as a competency that allows one to put theoretical knowledge into practice. Whereas theoretical knowledge is something applicable to many different situations, practical knowledge can be regarded as usable only in specific contexts. It is partly rooted in the individual's experiences, and thus it includes tacit, intuitive or implicit knowledge. Practical knowledge covers basic health

skills such as the ability to find health information, the ability to seek health services and the ability to give first aid.

Individual critical thinking can be understood as the ability to think clearly and rationally. It is based on possession of an investigative attitude towards the world, and a desire to understand health issues in a deeper way. In practice, critical thinking includes higher-level thinking skills, such as an ability to analyse, evaluate and create something new; this could include, for example, the ability to search for logical connections between health ideas, to solve problems, to argue, to draw conclusions or to assess the validity of health information.

Self-awareness is the ability to reflect on oneself, and it makes possible the personal contextualisation of health issues. Through self-reflection, the individual becomes conscious of his/her own thoughts, feelings, needs, motives, values, attitudes and experiences, and is able to consider how these relate to ways of behaving in an individually health-enhancing way. An important part of self-awareness is the ability to reflect on oneself as a learner.

Citizenship involves the ability to take social responsibility, and to think of the probable consequences of one's own actions on others. The ability to act in an ethically responsible way means that individuals are able to consider health issues beyond their own perspective: they may thus become aware of their own rights and responsibilities, and the effects that their actions or thoughts may have on other people, or on the environment. This component further includes the ability to identify (and to work on) factors that influence possibilities to achieve or maintain good health, both for oneself and for others.

Source: Paakkari and Paakkari (2012), according to Paakkari et al (2016)

At the time when most recent curriculum development was taking place, the Finnish National Board of Education published a report on the national assessment of Health Education. The findings indicated that pupils' competence in Health Education was at a satisfactory level, and clear challenges were identified regarding pupils' higher-order thinking skills (Summanen, 2014). Hence, the new curriculum aimed at strengthening the role of such higher-order competencies.

Objectives of instruction in grades 1-2 and 3-6

In grades 1-6, Health Education is to be taught as a component of integrated environmental studies, and this clearly influences the content of Health Education. In total, 532 hours are allocated for environmental studies; these are to be divided between Health Education, Biology and Geography, Physics and Chemistry. In grades 1-6, instruction in environmental studies should support pupils in knowing and understanding themselves and other people; it should further address the importance of health and wellbeing, nature and the constructed environment and related phenomena. Attention should be paid to the development of critical

thinking, with efforts to improve pupils' ability to acquire, process, produce, present, evaluate and appraise information in different situations. An essential element in Health Education is an understanding of environmental factors and human activities that support health, wellbeing and safety. Table 34.1 gives some examples of the specific objectives of environmental studies in grades 1-2.

In grades 3-6 the objectives of environmental studies are slightly more demanding than in the lower grades, but still focus on a range of aspects of health literacy (see Table 34.2). To support teachers' assessments, the core curriculum contains the assessment criteria for 'good' knowledge and skills (corresponding to numerical grade 8, scale 4-10).

Objectives of instruction in grades 7-9

In grades 7-9 there are 114 hours of Health Education. The instruction should expand and deepen the themes studied at lower levels, and the learning requirements are thus more demanding.

The main idea in the instruction is to build up a holistic picture of health and its constituents (see Dahlgren and Whitehead, 1991). Health, wellbeing, and safety-related phenomena are to be observed in an age-appropriate way, via different components of health literacy. The core curriculum is built up from three broader phenomenon (that is, key content areas), namely: (1) growth and development supporting health; (2) factors supporting and harming health and prevention of illness; and (3) health, communities, society and culture (Finnish National Board

Table 34.1: Examples of objectives in grades 1-2, divided into health literacy components

Objectives of instruction	Health literacy component(s)
To guide the pupil in reflecting on factors that support growth, development, health and wellbeing, and the basic necessities of life	Theoretical knowledge
To guide the pupil in practising (1) teamwork skills and (2) emotional skills, and to strengthen their self-respect and respect for others	Practical knowledge, self-awareness
To encourage curiosity about the world, so that pupils ask questions, and use collaborative discussion as a basis for small research assignments and other activities	Practical knowledge, critical thinking
To encourage pupils in expressing themselves and in justifying their opinions	Practical knowledge, self-awareness, critical thinking
To guide pupils in describing, comparing and classifying organisms, habitats, phenomena, materials and situations in diverse ways, applying names when possible	
To support the development of pupils' environmental awareness, guiding pupils so that they act sustainably in their surroundings and the school community	Citizenship, critical thinking

Source: Finnish National Board of Education (2014), modified

Table 34.2: Examples of objectives in grades 3-6, with health literacy components and assessment criteria for 'good' knowledge at the end of grade 6

Objectives of instruction	Health literacy component	Assessment criteria for 'good' knowledge and skills/ numerical grade 8
To guide pupils in understanding aspects of health and the importance of everyday health habits; also people's life courses, plus individual growth and development in children and teenagers. To encourage pupils to practise and apply their health literacy in daily life	Theoretical knowledge	Pupils should be able to describe aspects of health and to give examples of how they can promote their own good health in daily life
To offer pupils opportunities to practise acting in a group in different roles and interactive situations; to inspire pupils to express themselves and to listen to others; also to support pupils in recognising, expressing and regulating their emotions	Practical knowledge	Pupils should be able to describe life course stages and to explain key characteristics of growth and development in puberty, plus individual variations Pupils should be able to describe practices related to, for example, acting in a group and polite behaviour; also practices for expressing and regulating emotions, and for applying them in different roles
To guide and encourage pupils in setting personal study goals and in making persistent efforts to achieve them; also in recognising their own competence in environmental studies	Self-awareness	Pupils should be able to set goals for themselves in small study units, and to work towards common goals
To guide pupils in obtaining reliable information, expressing and justifying different views and interpreting and critically evaluating information sources and viewpoints	Critical thinking	Pupils should be able to search for information from different sources of information and select some reliable sources of information
To guide pupils in recognising causal relationships, and in arriving at conclusions from results obtained		Pupils should be able to justify various views and to identify dissimilarities in different viewpoints
To support the development of pupils' environmental awareness and to guide pupils in acting and becoming involved with their surroundings and community, with the aim of promoting sustainable development and appreciating the importance of sustainable development for themselves and the world	Citizenship	Pupils should be able to identify causal relationships through guidance, and draw simple conclusions from results obtained Pupils should be able to describe factors that support and threaten the building of a sustainable future, using examples Pupils should be able to describe different methods of protecting, developing and influencing their surroundings and communities; also to act jointly in projects, under guidance

Source: Finnish National Board of Education (2014), modified

of Education, 2014). There are in total 12 objectives for Health Education, and more specifically, four objectives relating to a single broader phenomenon. All the objectives related to one phenomenon are then assigned to various health literacy components (theoretical knowledge, practical knowledge, self-awareness, and critical thinking and citizenship). These components should be related to the relevant larger phenomenon, which forms the context. Critical thinking and citizenship are grouped together to form common objectives. Table 34.3 shows some of the instructional objectives for each health literacy component. In addition, learning criteria for the level of 'good' are set out. A final assessment, based on these criteria, should take place on completion of studies.

Assessment of health literacy as a learning outcome

In Finland, learning assessments are based on the Basic Education Act 1998. This states that 'the aim of pupil assessment is to guide and encourage learning and to develop the pupil's capability for self-assessment' (1998, p 10). In the Finnish national core curriculum, a special emphasis has been placed on defining what assessment is, and how it should be carried out in schools. It clearly states that at all assessment should: (1) take place in an encouraging atmosphere; (2) use various assessment practices; and (3) be conducted in a dialogical and interactive manner (pupil-teacher, pupil-pupil, home-school). The assessment should further (4) support pupils so that they become aware of their own learning; (5) be ethically sound and fair; and (6) be used to develop teaching further (Finnish National Board of Education, 2014). All assessment should take into account the age and capabilities of the pupils.

Health Education assessment should focus on the different components of health literacy. Furthermore, pupils should have the opportunity to demonstrate their competence in different phases of the instruction. The assessment and feedback should support learning, and should encourage the pupils to develop their health literacy. A pupil-oriented learning culture will also challenge schools to renew their assessment culture. Thus, rather than having a culture of measuring and controlling, schools should move towards a learning-based assessment culture in which the pupil is an active participant (Black et al, 2004). This means that pupils should have opportunities for both self-assessment and peer assessment. Such self-assessment should give pupils a view of their own level of knowledge. This will encourage learners to consider reasons for learning, support them in adopting an in-depth learning method and promote their ability to self-regulate their learning processes (Prosser and Trigwell, 1999; Ozogul and Sullivan, 2007). In a similar manner to self-assessment, peer assessment directly involves pupils in the learning process, and in addition, allows pupils to learn from others (Vu and Dall'Alba, 2007).

The assessment should be based on pre-published criteria (derived from learning objectives). This increases the transparency and openness of the assessment. Criterion-based assessment supports reliability and fairness, since

Table 34.3: Examples of objectives in grades 7-9, health literacy components and final assessment criteria for 'good' knowledge

Objectives of instruction	Health literacy component(s)	Assessment criteria for 'good' knowledge and skills /numerical grade 8
To guide pupils in understanding the broad nature of health, plus health promotion, life courses, growth and development, in a resource-based manner	Theoretical knowledge	Using examples, pupils should be able to describe aspects of health, plus the interaction between the various aspects, and to describe what health promotion means Pupils should be able to describe different stages of life courses, particularly development during adolescence, and to describe with examples the significance of health, growth and development as a resource for life
To guide pupils in developing their emotional and interaction skills, and the ability to act in different conflict and crisis situations	Practical knowledge	Pupils should be able to identify various emotions and give examples of the interaction of emotions and behaviour, linking this also to regulation of behaviour Pupils should be able to find solutions to conflicts and to present ways to manage stress and crises
To guide pupils in recognising and evaluating habits and choices related to health and safety; also to encourage pupils to reflect on the resources that are important for their health	Self-awareness	Not used as a basis for grade formulation. Pupils are guided to reflect on their own experiences as an element in self-assessment
To guide pupils in understanding the ways of learning that are most personally suitable for them	Self-awareness	Pupils can use examples to analyse factors that support their own learning
To guide pupils in recognising and critically examining phenomena related to health and safety; plus the values and norms connected to these; also to evaluate the reliability and significance of information	Critical thinking and citizenship	Pupils should be able to analyse factors affecting the adoption of health habits, and to explain the formation of phenomena related to health habits
To support pupils' ability to analyse rights, responsibilities and means of individual involvement, in matters of health, the learning environment and local communities	Critical thinking and citizenship	Pupils should be able to describe ethical questions related to ways of life; using examples; they should be able to evaluate the consequences of choices related to ways of life Pupils should be able to evaluate the reliability of health-related information, on the basis of multiple factors affecting the reliability of information Pupils should be able to analyse the consequences of various ways of life on other people, and on the health of the environment; also to give examples of measures affecting health in their surroundings

Source: Finnish National Board of Education (2014), modified

pupils' competencies are compared only to the criteria in question, and not, for example, to the level of other pupils. Pre-defined criteria give information to pupils on the kinds of competence (quality, scale, depth) that are expected, and on the purpose of an assessment. This can guide pupils' learning and support comprehensive health literacy.

Health literacy as a learning outcome will be explicitly assessed from grade 7. At lower levels (grades 3-6), it will be implicitly assessed as part of environmental studies. Numerical grading will begin no later than in grade 8. Before that, it will be possible for verbal assessment to be used alone, or applied in conjunction with numerical grading. Pupils are to be assessed in how well they have fulfilled the criteria for grade 8 ('good') as defined and described in the national curriculum (see Tables 34.2 and 34.3).

Health Education aims at developing pupils' self-awareness in addition to other core components. However, this competence cannot be included into the grading (see Table 34.2). This decision was taken to avoid a situation in which assessment would focus on pupils' ways of behaving, or their attitudes, or their values, rather than on their knowledge and skills. It should be noted that this decision was linked to a particular cause for concern. In fact, about 20 per cent of Health Education teachers in Finland have reported that they do include health behaviour within their assessment (Summanen, 2014). Considered from the point of view of curriculum objectives, this is a basic fault. Teachers should be able to distinguish individual ways of behaving, values, and attitudes from the pupil's ability to reflect on them. The national curriculum obliges all teachers to follow the instructions it provides, regarding the focus and practices relating to assessment. Thus, the criteria for the assessment of learning in Health Education set bounds on the kinds of aspects of health literacy that can and should be assessed.

The arguments above are linked to the question of where health literacy actually ends. Paakkari and George (2018) reflect on the ethical perspectives that may be relevant here. They argue that health literacy ends when we move from learning outcomes to the probable consequences of these outcomes on one's personal characteristics, ways of behaving and health. In fact, opinions along these lines underline certain elements of the Health Education curriculum. There, one can see that the learning criteria do not include motivation and attitudes, even if these have been included in the OECD (2005) discussions of key competences. In taking this decision, the Health Education curriculum explicitly emphasises that one's health literacy level cannot be assessed on the basis of a pupil's 'values, attitudes, health behaviour, sociability, temperament, or other personal characteristics' (Finnish National Board of Education, 2014, p 432).

Final remarks

To sum up, in Finland, the learning of health-related competencies in basic education is a national-level right of every pupil, and the curriculum aims to secure this right. It remains to be seen how far the general principles set out in the

national core curriculum are manifested in schools, since they will undoubtedly require new ways of thinking about teaching, learning and assessment. Also, the new Health Education curriculum, with its explicit emphasis on health literacy, imposes demands on Health Education teacher training.

In Finland teachers of Health Education must have the teaching qualifications required for a subject teacher (that is, a teacher specialising in and teaching the content of one particular school subject). The studies must consist of at least basic-level (25 ETCS) and intermediate-level (35 ECTS) multidisciplinary university-level studies in Health Education. In addition, if Health Education is to be the *main* teaching subject of a teacher, then she or he must include advanced-level studies (60 ECTS) into the study programme as well. Health literacy is clearly approached and focused on during the teacher training programme in all areas of expertise of a teacher. Health Education teacher training has been built around seven areas of expertise, which are the teacher's grasp of research, content knowledge, pedagogical content knowledge, and interactive skills, ethical awareness, knowledge of the pupils as learners, the teacher's self-knowledge, and knowledge of the school as an operational environment. The aim has been to form a coherent teacher training programme that will emphasise the linkage between educational and health phenomena, rather than presenting an 'atomistic' view that would tend to blur the connection between education and health – as has been reported to be the case in England (Speller et al, 2010). It is easy to agree with the statement made almost two decades ago, that 'education for health literacy for the provider (teacher) should be as important as for the consumer (student)' (Peterson et al, 2001, p 144). In Finland, to a certain degree this has been secured by the law: both the subject Health Education focusing on health literacy and teacher training are law-based.

References

- Abel, T. (2007) 'Cultural capital in health promotion', in D.V. McQueen and I. Kickbusch (eds) *Health and modernity. The role of theory in health promotion*, New York: Springer, 43-73.
- Apple, M.W. (1993) 'The politics of official knowledge: Does a national curriculum make sense?', *Discourse*, 14, 1, 1-16.
- Basic Education Act of 1998, 628, Amendments up to 1136/2010.
- Begoray, D.L., Wharf-Higgins, J. and MacDonald, M. (2009) 'High school health curriculum and health literacy: Canadian student voices', *Global Health Promotion*, 16, 4, 35-42.
- Berkman, N.D., Sheridan, S.L., Donahue, K.E., Halpern, D.J. and Crotty, K. (2011) 'Low health literacy and health outcomes: An updated systematic review', *Annals of Internal Medicine*, 155, 2, 97-107.
- Biesta, G.J.J. (2010) *Good education in an age of measurement: Ethics, politics, democracy*, Boulder, CO: Paradigm Publisher.

- Black, P., Harrison, C., Lee, C., Marshall, B. and William, D. (2004) 'Working inside the Black Box: Assessment for learning in the classroom', *Phi Delta Kappan*, 86, 1, 9-21.
- Dahlgren, G. and Whitehead, M. (1991) *Policies and strategies to promote equity in health*, Stockholm: Institute for Future Studies.
- Finnish National Board of Education (2004) *National core curriculum for basic education 2004*, Vammala: Vammalan kirjapaino.
- Finnish National Board of Education (2014) *National core curriculum for basic education 2014*, Helsinki: Next Print.
- Hallituksen esitys (2000) HE 142/2000. Hallituksen esitys eduskunnalle laeiksi perusopetuslain 11 §:n, lukiolain 7 §:n ja ammatillisesta koulutuksesta annetun lain 12 ja 17 §:n muuttamisesta.
- Hrivnová, M. (2016) 'Health literacy in pupils in the context of research of resulting curriculum of health education', *Anthropologist*, 24, 1, 277-83.
- Joint Committee on National Health Education Standards (1995) *National health education standards: Achieving health literacy*, Atlanta, GA: American Cancer Society.
- Korhonen, J. (1998) *Terveyskasvatuksen ja terveystiedon opetussuunnitelmat sekä näkökohtia niiden kehittämiseksi*, Jyväskylän yliopisto, Terveystieteen laitoksen julkaisusarja 8.
- Korhonen, J. (2007) 'Terveystieteen opinnäytteen alkeista nykyiseksi terveystieteen oppiaineeksi', *Liito*, 4, 8-14.
- Lintonen, T., Rimpela, M., Ahlstrom, S., Rimpela, A. and Vikat, A. (2000) 'Trends in drinking habits among Finnish adolescents from 1977 to 1999', *Addiction*, 95, 8, 1255-63.
- Macdonald, D. (2013) 'The new Australian health and physical education curriculum: A case of/for gradualism in curriculum reform?', *Asia-Pacific Journal of Health, Sport and Physical Education*, 4, 2, 95-108.
- Nutbeam, D. (2000) 'Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century', *Health Promotion International*, 15, 3, 259-67.
- OECD (Organisation for Economic Co-operation and Development) (2005) *The definition and selection of key competencies: Executive summary*, Paris: OECD (www.oecd.org/pisa/35070367.pdf).
- Ozogul, G. and Sullivan, H. (2007) 'Student performance and attitudes under formative evaluation by teacher, self- and peer-evaluators', *Education Technology Research and Development*, 57, 3, 393-410.
- Paakkari, L. and George, S. (2018) 'Ethical underpinnings for the development of health literacy in schools: ethical premises ('why'), orientations ('what') and tone ('how')', *BMC Public Health*, 18, 1, 326.
- Paakkari, L. and Paakkari, O. (2012) 'Health literacy as a learning outcome in schools', *Health Education*, 112, 2, 133-52.
- Paakkari, O., Torppa, M., Kannas, L. and Paakkari, L. (2016) 'Subjective health literacy: Development of a brief instrument for school-aged children', *Scandinavian Journal of Public Health*, 44, 8, 751-7.

- Parker, R.M., Ratzan, S.C. and Lurie, N. (2003) 'Health literacy: A policy challenge for advancing high-quality health care', *Health Affairs*, 22, 4, 147-53.
- Peterson, F.L., Cooper, R.J. and Laird, J.A. (2001) 'Enhancing teacher health literacy in school health promotion: A vision for the new millennium', *Journal of School Health*, 71, 4, 138-44.
- Prosser, M. and Trigwell, K. (1999) *Understanding learning and teaching: The experience in higher education*, Buckingham: SRHE, Open University Press.
- Speller, V., Byrne, J., Dewhurst, S., Almond, P., Mohebati, L., Norman, M., et al (2010) 'Developing trainee school teachers' expertise as health promoters', *Health Education*, 110, 6, 490-507.
- St Leger, L.S. and Nutbeam, D. (2000) 'A model for mapping linkages between health and education agencies to improve school health', *Journal of School Health*, 70, 2, 45-50.
- Summanen, A.-M. (2014) *Terveystiedon oppimistulokset perusopetuksen päättövaiheessa 2013* [*The health education learning outcomes at the end of basic education in 2013*], Koulutuksen seurantaraportit 2014: 1, Opetushallitus, Tampere: Juvenes Print.
- UNESCO IBE (International Bureau of Education) (2013) *Glossary of curriculum terminology* (www.ibe.unesco.org/fileadmin/user_upload/Publications/IBE_GlossaryCurriculumTerminology2013_eng.pdf).
- Volandes, A.E. and Paasche-Orlow, M.K. (2007) 'Health literacy, health inequality and a just healthcare system', *The American Journal of Bioethics*, 7, 11, 5-10.
- Vu, T.T. and Dall'Alba, G. (2007) 'Students' experience of peer assessment in a professional course', *Assessment & Evaluation in Higher Education*, 32, 5, 541-56.
- Zarcadoolas, C., Pleasant, A. and Greer, D.S. (2005) 'Understanding health literacy: An expanded model', *Health Promotion International*, 20, 2, 195-203.