

THE EVALUATION OF COMPETENCES IN HEALTH

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Abstract

Our citizens, on their way through compulsory education, are taught and learn knowledge of maths, language, science, etc... allowing them to form part of our society, but ... have they acquired the health competences necessary for them to function in a changing society, to control the factors that determine health, individually and collectively, to intervene in their immediate environment to make it a more humane and friendly one, and ultimately, to add life to years and years to life? This paper aims to present a tool to address and evaluate health competences as they are addressed in the education system, particularly in the field of drug abuse prevention.

Keywords: health education, competences, review, compulsory schooling.

1 INTRODUCTION

The Organic Law on Education (LOE) of May 3, 2006, [1] incorporates basic competences into the school curriculum thereby awarding them the role of curricular reference. With this legislative decision, the Spanish government adopts the findings of the international organizations (OECD and the European Commission) ([2], [3]) and the Programme for International Student Assessment (PISA) [4] on the teaching and learning of basic skills as a means to improve quality and equity of the education system. The inclusion of basic competences in the curriculum is a first step towards bringing the Spanish education system in line with international requirements.

Therefore, our citizens, on their way through compulsory education are taught and learn knowledge of maths, language, science, etc... allowing them to form part of our society, but ...have they acquired the health competences necessary for them to function in a changing society, to control the factors that determine health, individually and collectively, to intervene in their immediate environment to make it more humane and friendly, and ultimately, to add life to years and years to life?

We understand competence as the ability to solve problems or deal with situations with the attitude of wanting to do so in a given context. Thus, competences involve some aspects of knowledge and understanding (*savoir*=knowledge), some aspects of how to act (*savoir-faire*=functional competences), some aspects of how to be (*being*=attitudes) and some aspects of knowing how to behave (*savoir-être*=behavioural competences). All these aspects make up the essence of competence as a whole.

Competences in health represent the ability and determination to solve problems linked to young people's individual or collective health. The development of these competences is a role that has been assigned to the education system and certain standards must be defined for their evaluation.

2 THE CONCEPT OF COMPETENCES

To date there has been little consensus in the specialist literature regarding the concept of competences which has been subjected to a wide range of interpretations depending on the speaker, the context in which the term is used and the use made of it. This lack of consensus has led to competence becoming described as a "fuzzy concept" [5]

The first approaches to competences date back to the 1960s within the context of the labour market where companies sought competent and qualified personnel [6]. In fact, one often comes across the

concept of competence in relation to other similar concepts such as skill, know-how, ability, aptitude, etc., arising under the need to precisely define the practical actions in order to evaluate performance.

However, we are interested in the educational domain where, over the past several years, competence has gained particular protagonism. From the review of existing definitions and in an attempt to synthesise, we may state that [7]:

- Competences have as their outcome the performance of efficient or excellent tasks.
- These tasks are related to the specifications of a certain occupation or clearly defined professional role.
- Competence must always be situated within a context. Alone, it is empty of content. For this reason, it is never static, but rather belongs to a constantly changing and evolving context.
- Competence is the structured organisation involving the practice of a set of elements such as knowledge, skills, attitudes and behaviours, among others.
- Competence is linked to action.
- It may be applied to a wide variety of situations.

When mentioning competence in education, this implies the consideration of social and market requirements. These requirements are conditioned by a series of social changes and transformations that promote undeniable adaptations and reforms of education systems, forcing them to establish the appropriate tools and mechanisms for responding to society's needs and demands.

In this setting, the focus on competences in education makes sense and appears as the ideal solution for the challenges facing a society that demands "mobilizing knowledge to solve problems independently, creatively and adapted to the context and its problems" [8].

Pérez [9] establishes six basic characteristics for understanding the term competence taking into account the works of the OECD embodied in the Definition and Selection of Key Competencies (DeSeCo) [10] document and the contributions of Hipkins [11]:

- Competences are holistic and integrated: The need to respond to complex situations implies that competences integrate external demands, individual attributes and the peculiarities of contexts or scenarios.
- Competences can be interpreted and intervened by each subject and do not rest with each individual alone, but rather in the cultural and professional wealth existing in each context.
- Competences place emphasis on values and attitudes. Closely linked to intentions, emotions and values, it is necessary to highlight the need that individuals wish to learn, find meaning and pleasure in the learning adventure, discover new horizons and take action.
- Competences involve a significant ethical component, which implies knowing and applying different dilemmas since every human situation is about facing, choosing and prioritising between the different moral principles in conflict. Making sense of one's actions implies moral choices.
- Competences are of a reflective nature and are transferable to new situations. The capacity of transferring competences acquired to new scenarios must be understood as a process of adaptation, one that requires comprehension, inquiry and new application of knowledge and skills.
- Competences can always be improved and extended, as they are of an evolutive nature.

In summary, the differentiating features of competences are the following: they constitute a complex and changing concept of experience, that is, knowledge applied not as a mechanical impulse but rather more reflectively, are susceptible to adapting to a wide variety of contexts and are of an integrated nature, covering knowledge, skills, emotions, values and attitudes. In short, all competences include a "know that", a "know-how" and a "wanting to do" in specific contexts and situations depending on the desired outcomes [12].

Thus we may say that competence is what a person needs to be able to confront the problems which he or she will encounter over the course of his or her lifetime in an effective way, mobilising conceptual (knowledge), functional (skills) and behavioural (attitudes) competences. It is in this "all" where knowledge combines with action, so that the response to a problem is efficient and coherent with a given situation.

We think of competences as instruments that allow individuals to be trained to learn how to live and face many of the challenging and complex situations they come across, building the appropriate

responses that have not previously been memorised, since the situations are as unfamiliar as their possible responses.

In 1996, Jacques Delors [13] published the report "Learning: the treasure within" which describes the characteristics of an education system capable of dealing with the challenges of the future. The report points out that "the ultimate mission of education is the complete social development of the individual and to enable each of us, without exception, to develop all our talents to the full and to realize our creative potential including responsibility for our own lives and achievement of our personal aims".

DeSeCo advocates a more holistic model of competence [14], integrating and linking demands, cognitive and non-cognitive prerequisites, in a complex system of action. Since the advent of this project, the majority of OECD member countries have begun to redefine the school curriculum concerning the concept of competence under the influence of its usage in the labour world. In 2004, the European Commission's Working Group on key competences defines them as "a set of knowledge, skills and attitudes that all individuals need for their personal achievement and development, interaction and employment, having been developed over the course of their compulsory schooling and serving as the basis for subsequent lifelong learning [15]. Thus, key competences become an essential tool for three areas of life: A) Lifelong achievement and development (cultural capital): key competences should allow each individual to pursue personal goals in life, drawing on their aspirations and the desire to continue lifelong learning. B) Interaction and engaging with others (social capital): participation as active citizens in society, without risk of being excluded. y C) Ability to work (human capital): the capacity of all individuals to hold down a decent job in the labour market.

3 BASIC COMPETENCES OF THE SCHOOL CURRICULUM

In Spain, the concept of competence has been included in the structure of the school curriculum since the passing of the Organic Law on Education (LOE) [1], following the European Parliament and Council's recommendation of 18 December 2006, and are presented as basic whereby all disciplines must collaborate in their achievement. [15]

The inclusion of basic competences in the curriculum represents placing emphasis on those learning subjects considered to be essential, from an integrated and applied approach, thus their basic nature, and must have been developed by the end of compulsory schooling in order to achieve personal fulfilment, exercise active citizenship, full participation in adult society and capable of sustaining lifelong learning. The inclusion of basic competences allows learning to be integrated, and relate them with a wide variety of contents to be used when necessary. These competences should facilitate as much as possible the development of potential abilities of each individual and the chance to generate lifelong learning. There are considered to be the foundation on which to construct the learning building and the place where all curricular areas and subjects converge [16].

Royal decree 1631/2006, of 29 December established the following 8 Basic Competences as the minimum of taught skills by the end of their compulsory secondary education: 1 Oral and written communication; 2 Mathematical competence; 3 Basic competence in science and technology; 4 Digital competence; 5 Social and civic competence; 6 Cultural awareness and expression; 7 Learning to learn and 8 Sense of initiative and entrepreneurship.

Although each Basic Competence has a specific field of development, they all possess common, overreaching elements, preventing them from being considered as isolated and unconnected elements, on the contrary, they are essential components of the individual in training and, therefore, make up a perfectly cohesive network.

By way of example we might underline that the characteristics of oral and written communication is the ability to express and interpret concepts, thoughts, and feelings, in mathematical competence it is the ability to solve problems, in the basic competence in science and technology is the ability to use and apply knowledge and methods to address problems, in digital competence it is the ability to seek, select and analyse information, in social and civic competence it is the ability to maintain an attitude of solidarity and responsibility, in the cultural awareness competence is to develop one's imagination and creative expression, in the learning to learn competence is the ability to accept mistakes and to learn from and alongside others, and finally, in the initiative competence is the transformation of ideas into actions.

As we can see, all are different facets of life, situations we are faced with on a daily basis and which we must know how to deal with. Competences highlight the different aspects on which to draw in order to find an acceptable solution, so as to attain personal fulfilment, exercise active citizenship and be socially included in adult life in a satisfactory manner. It is an opportunity for education to rediscover its potential for improving both individuals and society as a whole.

4 COMPETENCES IN HEALTH

In the competence of knowledge and interaction with the natural world, Royal Decree 1631/2006 states that part of this basic competence is the responsible use of natural resources, care of the environment, rational and responsible consumption, and the protection of individual and collective health as key elements of peoples' quality of life.

No other aspects directly linked to health are mentioned in this Decree, however, the parallelism between the competences and objectives of Health Education are obvious. The ideas of health presented by the WHO's Regional Office for Europe in 1984 states: "Health is the ability to realise their full potential and respond positively to challenges from their surroundings". Health is considered as a resource for life, not as an object as such and states the need and importance of developing all individual capacities, in a permanent and continuous process, to improve our quality of life. [17]

The concept of Health Education presented by WHO in the Jakarta Declaration (1997) [18] emphasises the development of personal skills leading to individual and community health. It is important to underline the emphasis placed on development of personal skills and abilities to work towards community health, thus added to individual health. We might therefore say that competences in health represent the capacity and determination to resolve problems related to individual and collective health.

As competences are all interrelated, likewise Health Education is not limited to a certain number of subjects, but rather forms part of the school curriculum as a whole, sharing a similar objective to competences: that is developing the individual potential of pupils enabling them to intervene in improving their quality of life. However, competences in health do possess a certain specificity that differentiates them from other competences, that is they aim to adopt behaviours, develop lifestyles, both on a personal as well as social dimension, as a way of articulating education and life. Far from a being a passing fashion, competences are the necessary link between work conducted at school and real life and between the present and future of pupils.

At school, Health Education has gone from being addressed as a way of transmitting information, to a generation of attitudes and motivations that encourage changes in behaviour, in an attempt to educate the responsibility of each individual for their own health, and the need to intervene in each setting as an act of social responsibility and to try and improve both their personal and community health.

Health education cannot be considered as a series of actions aimed solely at the individual, since as Minkler (1989) [19] points out, activities directed at the promotion of lifestyles, based exclusively on strategies aimed at changing individual behaviours, run the risk of blaming individuals for their possible lack of health, of treating disease as if it were the result of personal failure, ignoring the risks in the environment and putting aside the connection that exists between individual behaviours and social norms and stimuli. These strategies instruct the person to be individually responsible, without taking into account problems linked to settings and the influence they exercise on the individual. The outcome is the emphasis on the community and social perspective of health.

5 LEVELS OF COMPLEXITY IN THE CONCEPT OF HEALTH

In our objective of specifying, defining and evaluating competences in health we must take into account our own health perception and the evolution that the term itself has undergone. Health competences signify the ability and determination to solve problems related to individual and collective health. The problems referred to here are those that require, or may require, action on the part of a health agent. We are not referring to diabetes, asthma, heart disease, stomach ulcers, etc. problems requiring the direct intervention of medical personnel, so, what health do we mean?

The concept of health is dynamic, it changes with the times, the culture and the living conditions of the population. That is, the idea that health is always limited by the social framework in which it intervenes [20]. Thus, in this section, we shall make a brief incursion into the evolution that the concept of health

has undergone in recent times, awarding each of the conceptions a certain level of representation depending on their complexity. Below is a brief description of five levels of complexity [21]:

-Level I: Traditionally, health has been interpreted as «the absence of disease or infirmity». Health is the normal life condition and is only altered by disease, therefore what is important is a life with nothing out of the ordinary, given that “it is only when things start going wrong that we realise it” [22]. This level has a strictly physical dimension. Synonym of life and using concepts such as: information, diseases, doctors, medicines, hospitals, physiological and anatomical terms, etc.

-Level II: In the Constitution of the World Health Organization [23], health is presented as «a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity». This definition is made in positive terms and includes, besides the above physical dimension, the emotional and social dimensions. Health is understood as a state of well-being and ideal life. Concepts such as: nutrition, sexuality, vaccines, well-being, etc. are used.

-Level III: Dubos [24], indicates that “what constitutes health is fundamentally humans adapting to their environment and their capacity to living reasonably in that environment». Health is understood as a state of balance which exists between the individual and his environment, so that when an alteration of this balance occurs, disease appears. The breakdown of this balance can occur both in the physical dimension, as well as in the mental and social dimension. The environment is incorporated into the concept of health. “Locus of control” is external since the environment determines quality of life. Concepts such as: setting, environment, balance, adaptation, publicity, working conditions, etc. are used.

-Level IV: The Congress of Catalan speaking Doctors and Biologists held in Perpignan [25] states that «health is a way of life developed in an autonomous, supportive and profoundly enjoyable way». It places the individual as the protagonist of his or her own health, since he or she is responsible for the actions that may deteriorate or improve it. At the same time, it requires an effort in order to achieve maximum autonomy, so that capacity to function does not depend on others. Health is understood as the follow-up of certain behaviours and prohibitions, process of change. “Locus of control” is internal. Concepts such as: process, behaviour, autonomy, lifestyle, personal development, etc. are used.

-Level V: The concept of health of the Regional Office for Europe of the WHO (1984) states that “health is the ability to realise aspirations and to change or cope with challenges posed by the environment”. It underlines the importance of developing all individual capacities, this being a permanent and ongoing process, depending on the transformation of the environment into a more healthy place. Health is seen as a holistic or global concept, as a multicausal process identified with personal and social development and as a means to improving quality of life. Concepts such as: education, individual capacities, intervention, society, etc. are used.

6 TOOL FOR EVALUATING COMPETENCES IN HEALTH

We have presented our concept of Competences in Health pointing out that they express the capacity and determination of solving problems related to young people’s individual and collective health. These health problems have been grouped into 8 health areas which are either situations or settings where we may find sets of interrelated health problems, and on which one may act on a collective level. We are referring to the areas of Nutrition and Physical Exercise, Addictions, Mental and Emotional Health, Sexuality, Accidents, Hygiene, Environment and Health Promotion.

Now a set of standards are required that enable the achievement of each one of the areas defined to be evaluated. Then a proposal in the Area of Addictions is presented, specifically a tool that serves as a means of defining competences as well as evaluating them.

We shall begin by pointing out that Martín [26] defines the prevention of drug abuse as “an active process of implementing initiatives that tend to modify and improve integral training an individual’s quality of life, encouraging individual self-control and collective resistance to the offer of drugs”.

The competence to be developed by students was defined in the following way: “**detection and prevention of addictive behaviours**”. In this competence we defined the three dimensions of knowing, knowing how to do and knowing how to be, that is, knowledge, functions and attitudes, which are:

Knowing: The effects produced by different substances in the body and the behaviours that lead to addiction.

Knowing how to do (Savoir- faire): Detecting risk behaviours, resisting peer-pressure and using socio-health resources in an appropriate way.

Knowing how to be (Savior-être): Critical appraisal of drug taking. Acceptance of addiction as a disease. Self-esteem and responsible decision-making. Healthy enjoyment of leisure and free time.

In this context we have produced a tool for the analysis of acquiring competences in the issue of drug abuse prevention based on the 5 levels of health established, highlighting the type of actions that may be drawn on in each of these levels and describing the three dimensions of each. For the purpose of this case the following analysis chart has been designed.

Competence in the detection and prevention of addictive behaviours.

Level of competence	Actions	Conceptual dimension	Functional dimension	Attitude dimension
L-1. Information	-Identify the influence of addictive substances on the human body.	-Changes in bodily organs affected by use.	-Recognising the components of addictive substances. -Seeking and using reliable information.	-Critical stance towards abuse -Valuing new information and communication technologies.
L-2. Care and wellbeing	-Avoid experiments. -Delay age of onset. -Avoid going from experiment to habit.	-Knowing socio-health resources as a means of information, prevention and/or care.	-Classify substances by their effects on a person's physical, mental and social wellbeing.	-Rejection of substance abuse.
L-3. Critical adaptation to setting.	-Identification of risks and perception of danger.	-Knowledge of risk factors.	-Critical analysis of publicity. -Clarity of values. -Search for support.	-Awareness of drug abuse as a disease.
L-4. Healthy lifestyles	-Development of protection factors.	-Knowledge of protection factors. -Rules for improving quality of life.	-Social skills to resist peer-pressure. -Responsible use of leisure time.	-Autonomy of criteria. -Self-esteem and assertion. -Critical stance towards substance abuse.
L-5. Interaction with setting	- Interact with setting in order to influence lifestyles and optimize quality of life.	-Knowledge of measures to avoid and/or reduce intake.	-Decision-making. -Modification of socio-environmental conditions.	-Tolerance and cooperation. -Committment and cooperation with community programmes.

7 CONCLUSIONS

We have studied the meaning of competences applied to the education system and in particular the basic competences defined by the current Education Law (LOE) and we went on to apply this knowledge to specific competences in health and particularly those linked to the field of drug abuse prevention.

We have studied the meaning of addiction prevention and the variety of means to be taken into account for their development on an educational level, and we have linked them to the 5 levels of complexity of the health concept established according to how they evolve.

The outcome of these interlinks is the design of a tool to be used in the planning and development of health competences in the classroom as well as in the evaluation of how they are handled in text books and the student achievement level when reaching the end of their compulsory schooling.

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