Chapter 21
Concept Maps and Meaningful Learning

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ABSTRACT

The search for meaningful learning promotes a rethinking of the approach adopted by teachers and students to take into account innovative methodologies based on previous experience of learning objectives. This article therefore describes the fundamentals of collaborative learning and the use of concept maps with different individuals in a hospital setting to promote learning about the complexity of their particular situation and in turn achieve higher levels of quality of life for school children receiving hospital treatment. The study also aimed to involve health professionals and health educators in this process and thus gather information to develop a Learning Object.

INTRODUCTION

It would seem incoherent to say that society is today experiencing a period of transition, as it is becoming increasingly clear that transition is a continuous and accelerating process. It is a fact that teaching systems need not only to adjust to this changing reality full of new requirements, but also to be flexible so that they are always up-to-date.

In this context, the value of learning is apparent. Educational methodologies and those involved in them need to become flexible and take into account new requirements so that education reflects the latest developments and can arouse peoples' interest and promote quality of life.

Behrens (2000) defines the foundations of globalized education as collaboration, communication and creativity. These three values are obtained by exploiting educational activities that promote the development of individuals' abilities, i.e., that value talents peculiar to each individual through peer exchange and teamwork, triggering interactive processes and hence socialization.

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It becomes clear that there is a need to create an educational environment in which there are constant challenges, with interdisciplinary projects based on innovative methods. There must be a constant search for knowledge both outside the classroom and outside class time, and this must be focused on a continuing interest in learning. In other words, the aim must be to develop self-motivated learning through the pursuit of the pleasure that can be obtained from relationships that involve exchanges in order to build knowledge. If this is to be achieved, it is important for schools and teachers to make available resources that are different and that keep students' interest, as well as overcoming the limits of space and time, so that they can be used by all the students irrespective of their particular situation and thus promote social inclusion.

Various didactic and methodological resources must be shown to the teachers and students to facilitate and contribute to the development of learning and the meaningful construction of this knowledge.

According to Delors (1998), four types of learning must permeate an individual's whole life and form the pillars of knowledge: *learning to know; learning to do; learning to live together; and learning to be.*

This way of looking at education therefore presupposes a focus on continuing, extended, diversified education within a context of meaningful teaching and learning, always viewed from the perspective of citizenship.

In this evolving context, present day pedagogical practice must use all the available resources to organize educational interactions and activities and invest in the training of producers and readers by means of different paths and languages, extending their concept of writing and reading to incorporate mediation using digital technologies.

Information and communication technologies provide opportunities for individual action and the diversification and transformation of learning environments, as well as extending the traditional limits of the classroom by putting individuals in contact with the globalized world. As a result, they require new dynamics in terms of both action and interaction, as well as a new organization of time and space, as they allow synchronous and asynchronous communication.

This article described the use of Learning Objects and Concept Maps in a hospital with children and adolescents with chronic kidney failure.

The learning objects made available in virtual learning environments used in this experiment are technological resources for organizing and structuring content for use in health education.

Another issue that is addressed in this study relates to health. The World Health Organization (WHO) defines health as physical, mental and social well-being rather than just the absence of disease. It also advocates healthy public policies, the creation of support environments, the development of personal skills, the strengthening of community action and the reorientation of health services as fundamental factors in the reaffirmation of social justice and equality in health promotion.

One of the aims of "hospital psychology" is to minimize children's suffering during the time they are sick and in hospital. It takes as its starting point a holistic view of man as a bio-psycho-socio-cultural being. According to Chiattone (in CAMONN, 2001, p.15) "the need for a new approach to the provision of assistance for sick children is the product of urgent reflection on prevailing issues relating to health and disease in contemporary western society."

In this regard, the knowledge associated with pedagogy and "hospital psychology" can, together with the use of learning objects and the techniques of concept maps, be of significant help in improving the quality of life of preadolescents with chronic kidney failure and involving health professionals as educators in this process.