

# Abstract

In recent years, there is increasing interest in alternative approaches to education. A variety of alternative streams approaches usually offer child-centered perspectives. Another common denominator of different alternative education approaches is the adoption of elements from the “Theory of Multiple Intelligences”. The central alternative approaches in Israel are: democratic, open, Waldorf and Montessori. Each of these approaches is based on its own educational theory and philosophy. Some of the leading educators of the 20th century established these different approaches: Maria Montessori, Rudolf Steiner, Daniel Greenberg, John Dewey, John Holt and others.

Waldorf education exists in Israel for over 25 years and is based on the developmental and educational perspective of Rudolf Steiner. One of the notable aspects in Waldorf education is the holistic approach to teaching that considers learning not only as a cognitive process, but also as a physical, mental and emotional process. This approach, which refers to the student as a whole person, is expressed in all disciplines (art, sport and science classes) and all the way from kindergarten through 12<sup>th</sup> grade.

The motivation for this investigation was my desire to learn and understand the main characteristics of Waldorf education with regards to science teaching. This is an exploratory study that uses primarily qualitative research tools with a combination of attitudinal surveys, allowing me to enrich the discussion with small quantitative findings. The research questions related to the characteristics of the science curriculum and pedagogy in Waldorf education and to the attitudes of teachers and students about the study and teaching of science in grades 6-9.

Findings of this study indicated a unique approach to science teaching; this approach involves subjects that are not normally taught in science education in traditional schools (such as optics, acoustics, embryology, etc.). All topics are taught in periods of two hours each day for a month, which requires special adaptations on part of the teachers. Analysis of eight science classes in 6-9 grades showed that teachers maintain a regular structure to the lessons and that this structure includes time allotted to movement, singing, reconstruction of the previous lesson, practice or demonstration of phenomena, and discussion.