



The Role of Interdisciplinary Scientific Activities

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Developing competences through knowledge and life skills is one of the major targets of education. In Physics one of the competences regards protection of one's self, others and the environment. To reach an optimum level of this competence one needs to understand natural phenomena and anticipate their effects on everything that happens on Earth. In developing life competence in a formal and non-formal way, besides compulsory disciplines, optional disciplines have an important role as well as extracurricular projects. On school level, we proposed as an optional discipline Seismology and Elements of Astronomy. During compulsory disciplines, I propose to my students research activities.

The Earth is continuously moving and transforming and this generates earthquakes. I feel that it is important for my students to know and understand the mechanisms causing and earthquake and the effects of such a phenomenon. During Seismology classes, my students watch documentaries, experiment and practice survival skills for earthquakes. Students are also involved in scientific activities through partnerships, such as ROEDUSEIS.

Interactions between our planet Earth and the rest of the Universe, the sky we see above us are important for life on Earth. Cosmic phenom affect our daily life and this is why I consider that students have to know about this and not be taken by surprise. The Elements of Astronomy course offers students the opportunity to fill out what are stars, planets, what are the rules that govern the Universe and how this affects our life on Earth. Students have the opportunity to study the sky using professional instruments and learn about researches and researchers from organizations such as ESERO, NASA, and ESA.

"Music and we" is another project that had an important impact on the universe of students' souls and artistic experiences. During this project themes such as mechanical waves (sound, musical instruments) are treated, we go to the opera, concerts, theatre, where, besides the artistic side of the activity (life of famous composers, how were musical compositions created), we learn about musical instruments, how they are arranged in an orchestra, how they produce sound and how sound waves interact in strings, blowing or percussion instruments.

From my point of view, Science in future classrooms must give students the propitious conditions to developing competences needed in day to day life.

Key words: research, science, interdisciplinary, astronomy, seismology, education, music, feel