

## ONLINE MATHEMATICS FOR BASIC SCHOOL AND HIGH SCHOOL STUDENTS IN MEXICO

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Veracruz is a Mexican state placed along the Gulf of Mexico, its natural geography includes many changes in topography: from narrow coastal plains to mountains of over 5,000m height. Veracruz has small arid zones, valleys, jungles, small lagoons and many rivers (more than 40 and tributaries) so that its climate varies from hot and humid to snow. Temperatures range from 0°C to 40°C. All these differences make it very difficult to cover the whole state with schools in order to give education to every child in the state. To solve this problem Veracruz's government called for projects to develop an on line education network and cover every city and town of the state (Consejo Nacional de Ciencia y Tecnología, 2009).

In 2009 we started a project co-financed by National Council of Science and Technology (named CONACYT for Consejo Nacional de Ciencia y Tecnología) and the Government of the State of Veracruz in Mexico (Authors, 2009). The project named "Design, development and generation of on line didactic materials for teaching mathematics in the school system of Veracruz" has two main goals. The first is to encourage the design and production of on line didactic materials to teach mathematics and sciences in basic schools and in high schools in the State of Veracruz in Mexico. The second is to create videos and demonstration material for teacher's training in the use of on line didactic activities.

The project is divided in four stages. After the first stage we have designed 20 activities applying the Theory of Didactic Situations (Brousseau, 1997) to teach trigonometry to basic school students (Authors, 2010). Those activities were designed to be used online only because they are programmed in Java<sup>®</sup>. In this poster we describe and show some of those activities and a few remarks we have received from teachers and students.

### References

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