

Astrofísica de La Plata (CCT La Plata - CONICET, UNLP).

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LEARNING EVALUATION OF MOON'S  
SYNCHRONOUS ROTATION MEDIATED BY  
COMPUTATIONAL RESOURCE

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We report in this poster a learning evaluation about Moon's synchronous rotation by analyzing results of the use of hypermedia The Sun, Earth and Moon in blended learning intervention of an introductory physics discipline. The animation is displayed in a dynamic interactive screen on which the user has control of the progress of the animation sequence. The results are obtained from quantitative and qualitative analysis of issues drawn from a pre-test and a learning assessment counting with 77 students respondents. Learning outcomes indicate that animation helps in learning the phenomenon of Moon's synchronous rotation and students evaluate the use of animations as a motivator and facilitator of learning.

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“PLANETÁRIO E TEATRO DIGITAL  
JOHANNES KEPLER” AND ITS  
INSTITUTIONAL PEDAGOGICAL PROJECT

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This work relates the reception of schools, started on August 2012, in the astronomical laboratory of the “Planetário e Teatro Digital Johannes Kepler”, located in the “Sabina - Escola Parque do Conhecimento” in Santo André, São Paulo. The idealization of this project, authorship of Marcos Calil, PhD, consists in four apprenticeship environments disposed around the planetary dome. They make reference to the System Sun - Earth - Moon (Tellurium), Solar System, Astronautic and Stars. On Tuesdays and Wednesdays the astronomical laboratory is used by Santo André municipal schools for focused lessons, being possible on Thursdays scheduling for private and public schools. On weekends and holidays is

opened for the visitors. Since the inauguration to the beginning of activities with students, the monitor team was guided and trained on contents of Astronomy and Aeronautic to execute the schools service. This is done in four stages, which are: reception, course through the astronomical laboratory, dome session and activities closure. During the reception the acquaintance rules are passed on for a better visit. Before starting the course the monitors do a survey about the previous knowledge of the students. On the astronomical laboratory resources of the environment are used to explain the contents of Astronomy and Astronautic, always considering the age group and the curriculum developed in classroom. After the course the students watch a planetary session supporting the contents seen on the astronomical laboratory. At the end a feedback is done with the students about the subject discussed. During the visit the teachers fulfill an evaluation about the place and the service. From August 2012 to November 2012 were attended between municipal, public and private schools. From the 4932 students attended, 92% belonged to the municipal network, 5% to the private network and 3% to the public network. From the 189 evaluations done by the teachers, 97.8% were satisfied, 2.1% partially satisfied e 0.1% unsatisfied with the reception promoted by the team of the planetary. Meantime the satisfaction presented on the evaluation is thought that the use of non-formal places is an ally of apprenticeship. The “Planetário e Teatro Digital Johannes Kepler” by its team collaborates for an education and divulgation of the Astronomy and Astronautic make part of the reality and quotidian of the students of the city of Santo André.

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BRAZILIAN ERATOSTHENES PROJECT

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The objective of Brazilian Eratosthenes Project is the development and application of teaching training actions according the “docent autonomy” concept to basic Astronomy Education. Argentina coordinates the project in South America, but Brazil works in this project since 2010 with the theme “Projeto Eratóstenes Brasil” in the homepage: <http://sites.google.com/site/projetoerato>. Two schools measure a sticks shadow and communicate their results. After, they calculate an average radius