

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
CALLING PLANET EARTH - SPACE OUTREACH TO THE GENERAL PUBLIC (3)

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KYIV PLANETARIUM AUDIENCE RESPONSE ON INTERACTIVE (QUESTIONS AND ANSWERS)  
LECTURE "ASTRO-QUIZ" - QUALITATIVE EVALUATION

**Abstract**

The "Astro-Quiz" planetarium show is aimed at 8-12 y.o. The script was written by Pierre Chastenay from Montreal Planetarium, and won planetarium script-writing competition 2006 organized by Eugenides Foundation and International Planetarium Society. This program implies audience participation and reaction by choosing right answer on proposed question and reacting physically (clapping or stamping) or by saying. In original version the program is performed by 2 people – one "curious to know" (he formulates questions and puts them to the audience), and one "expert in the field" who gives after the audience's selection the correct answer and profound explanation of the phenomena discussed. In our adaptation at Kyiv planetarium (300 seats and 24 m across dome) both functions are performed by 1 lecturer. Questions are organized in such categories:

- The Earth, the Moon, the Sun - discussion about sizes, distances, shapes, orbits;
- Phases of the Moon – reasons of phases, how the Moon will look like next night, distinction between the first and the last quarter of the Moon;
- The Solar system.

In Kyiv Planetarium people accepted the "Astro-Quiz" program very positively, ready to play and interact. Family visitors on week-ends replied cautiously, and wrong answers were rare (the question about the reason for Moon phases was the most controversial). People are afraid to look "stupid" to their neighbors, and people who are not sure in their opinion are being influenced by responses of others. But pupils, attending the lecture with their schoolmates on week days, answered more vividly, not being afraid of giving a wrong answer.

Anyway, this program is thought provoking, entertaining, involves physical reaction and movements, everyone is involved in active process; it provides profound explanation of discussed phenomena and misunderstood concepts, and gives perfect opportunity to explore values and beliefs.

As a result of summative evaluation I would suggest:

- Q&A programs may run successfully in Planetariums smaller then the one in Kiev (where close interaction with the big and distant audience is still difficult), or for small groups;
- Q&A programs performance at bigger planetarium (like the one in Kiev) needs additional equipment (like clickers and interactive boards) to allow visitors to express their values and beliefs independently and "anonymously";
- The "Astro-Quiz" program in Ukrainian school curriculum should be offered to students younger then 11 y.o.

More details of the study are discussed.