

# Astronomical Pills: One-shot Questions about the Universe

F. Cavallotti, S. Romaniello, S. Sandrelli

In the last two years, the Public Outreach & Education office (POE) of the INAF-Osservatorio Astronomico di Brera (Milano, Italy) carried on an extensive survey (800 tests) of the instinctive ideas that intermediate and high school students (14-18) use when facing astronomical concepts.

The students were asked to face nine closed-answer questions plus an open answer one, making their choice in a handful of seconds.

Our goal was to make a first step into the exploration of the naive view of the universe developed by pupils in the different range of ages. In particular we explored the evolution (if it exists) of some misconceptions depending on age. Are misconceptions static ideas or they are removed by school?

In the present talk we present a critical review of the work, making the points of "lessons learned", "what works and what doesn't" and "what can be learnt" from our personal experiences.