

The ASL (Alternanza Scuola Lavoro) program: an italian example to bring research to school and school to research

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Abstract

Teaching science in high school in innovative and fascinating ways is not always easy. In most cases, this subject is seen as difficult and boring and often students, at the end of their scholastic career have no idea of what scientific research is like and why it is important in everyday life. At the same time, it is hard for the research community to attract young people to STEM careers starting from high schools, presenting science and research as a feasible job for the future of many students.

In this context, the Italian program ASL [1] (that stands for “Alternanza Scuola Lavoro” and that can be translated in School Work Alternation), introduced by the Government starting from the year 2015, can provide an excellent opportunity both for schools and for the research community, including Institutions, Universities and Research Centers. ASL is an over-all revolution in the Italian educational system: in 2017/2018 it became mandatory for more than 1,5 million students in the all country, completely changing high school everyday activity and affecting the organization and results of final examination. The program consists in 200 hours (or 400 hours for technical Institutes) that all students of the last three years of high school have to spend in working experiences. During this time, all Italian high school students are obliged to perform activities as similar as possible to real job, organized in collaboration between the School and a private or public entity (such as a Research Center, a University, but also a firm, an industry, a shop or other).

In this framework, INAF (the National Institute for Astrophysics) on a national scale [2] and the Roma Tre University in the Rome Area, represent two different and complementary examples of how this experience can be used by researchers and university members to share their knowledge and work with young people, bringing them closer to science. During the first three years of the program, many activities have been developed, involving laboratory

experiences, seminars, guided tours and outreach activities. In this presentation, we will resume some of the experience, knowledge and results acquired until now, giving a global picture of how ASL can be a great opportunity to bring research to school and, at the same time, school to research.

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References

[1] “Attività Di Alternanza Scuola Lavoro: Guida Operativa Per La Scuola 2017”, M.I.U.R - Direzione generale per gli ordinamenti scolastici e la valutazione del sistema nazionale di istruzione

[2] Ziggiotti, M.: “Alternanza Scuola Lavoro in INAF: come trasformare l'eccellenza della ricerca astrofisica e spaziale italiana in un precursore di didattica della scienza”, Thesys of Master di II Livello Scienza e Tecnologia Spaziale, Università di Roma Tor Vergata, 22nd of January 2018.