

The convergence of the disciplines for stage in high schools **Porta M.¹, Codetta A.², Cambini R.², Grieco G.³**

¹Liceo Scientifico "Antonio Banfi" Via Adda 6, 20871 Vimercate, Italy

²OPPI, Milano

³Universtà degli Studi di Milano, Dipartimento Scienze della Terra "A.Desio", Milano

For Liceo the ASL, Alternanza Scuola-Lavoro is a challenge. While in technical and vocational education the ASL is an integral part of the curricula, in Liceo it risks becoming another activity that is added to citizenship education, assessment by skills, university orientation. The teachers see this set of activities as an already inadequate subtraction of time. Interesting opportunities are created by engaging students and the whole class council in activities of contextualization of knowledge. In Liceo it is not appropriate to build a real simulated company, because there are no legal and economic skills. It will be sufficient, the constant reference to business organization to engage the students in the realization of cultural products for an external customer. Students, with a precise responsibility in a working group, experience some of the typical dynamics of a work situation. From the observation, guided by indicators, and from the evaluation of the products, the teachers can obtain useful indications for inserting the students in the business realities. The Big History Project in Earth's Science context can be the solution. In a first phase the students, in groups, study the history of the Universe according to the program. Referring to the JIGSAW method (Lestik, 2012), the groups can be mixed in such a way that in each of them there is an "expert" student on the topic. They will have the task of creating a product of their choice that expresses a vision of the Universe as far as possible unitary and referred to work contexts. "Avogadro Institute" of Biella has produced videos with Sony Vegas Pro. One has engaged in a History of the Universe in 8 minutes, the other has presented the geological history of Biella. This job could be preparatory to a subsequent ASL in a geopark. In the "Antonio Banfi" Liceo in Vimercate (MI) it was decided to let the whole class work in the realization of a single product as 30-minute documentary that obtained almost 1500 views on Youtube. An educational trip to the Geological Observatory of Coldigioco has introduced students to the complexity of the geological history of Italy and the international interest it raises. A subsequent inspection in Val d'Ossola, led by the Department of Earth Sciences of the University of Milan, provided the necessary information to relate the remote history of the valley with the recent one. Finally, the online attendance of a coding course allowed students to design and implement an application for mobile phones with App Inventor. From the set of evaluative elements such as group work observation tables, the daily report of the progress of the activities on a dedicated platform and the evaluation of the realized products, a profile of the student's skills can emerge, useful for a subsequent ASL insertion in a company real and also for orientation at the end of high school studies. References Lestik, M., & Plous, S. (2012). "Jigsaw Classroom". Retrieved October 24, 2012, from jigsaw.org