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LABLEARNING: DIGITAL MEDIA TO COMBAT EARLY SCHOOL LEAVING

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Abstract

Early school leaving jeopardizes the attempt to expand education to enrich democratic participation, economic growth and personal development. This paper presents LabLearning, a European project that developed a digital media-rich learning approach based on the assumption that “difficult” learners are not a problem, but a resource that requires a different learning environment to come out. The paper presents some cases, their analysis through a qualitative approach, and some conclusions.

Keywords: early school leaving, digital media, laboratory, project-based learning, community learning.

1 THE CHALLENGE OF EARLY SCHOOL LEAVING

1.1 The risks of early school leaving

Education is the most important source of social and economic value for our future, and one of the primary resources for personal development. For this reason, all nations continue investing in the improvement and development of their education systems. The European Union and all European countries in particular, have been investing a lot in the development of compulsory education, and have also extended their attention to higher education – including professional education – and lifelong learning [1].

Nevertheless, education systems do not seem to fulfill their mission: every year a high number of students fall out from their education path, both during compulsory education (generally in Europe up to grade 9) and at later stages [2]. Early school leavers, also known as “drop-outs”, follow different patterns in different national contexts, depending no available remedial measures and opportunities for re-inclusion. In any case, they harm their own future and jeopardize their social and economic potential, while also generating extra costs [3].

The most common pattern for early school leavers is dropping out during their teens, and for many different reasons. In most cases, dropping out seems correlated with socioeconomic disadvantage [3; 4]. From the point of view of teachers, this means that these weak student just “do not match” school requirements [5]: they seem to be unable to bridge theory and practice, they do not resist sitting down for hours, they cannot concentrate in things they cannot experiment right away, etc. This hinders motivation, in a vicious loop that brings their school performances down and down until they decide to stay home or, more precisely, they simply stop deciding anything about their future.

1.2 Combating early school leaving: a challenging assumption

The fight to reduce early school leaving and to provide complete education to the largest number of young people is being fought on many fronts. These include orientation, alternative measures to re-integrate early school leavers at later stages, especially in vocational education and training, and drop-out prevention activities. This paper reports an attempt that, based on a strong assumption, possibly goes one step beyond such measures.

The assumption is that the increasing rate of early school leavers in many countries does not only depend on factors external to school systems such as socioeconomic status, family issues, etc., but is

also connected with the instructional methods being used in schools [6]. In other words, potential drop-out students are not “unfit for learning” – rather, school teaching and learning methods do not fit these young persons. The hypothesis is that changing teaching and learning methods is easier and probably more effective than trying to change early school leavers to make them “fit” for schooling.

A simple observation supports such a strong claim. Young people actually spend a lot of time using digital media for learning any kind of (often academically irrelevant) information and abilities: from skating to rap music, from video shooting to smoking *shisha*. Can such informal and voluntary learning processes be the starting point for stimulating also formal school learning?

LabLearning is a European multilateral project [7] developed under the Comenius sub-program of the Lifelong Learning Programme, committed to create new opportunities for actual or potential early school leavers. The working hypothesis is that digital technology might offer a leverage to counter drop-out by acting on motivation and self-efficacy.

Teenagers often use digital media as consumers: listening to music, watching TV, surfing the web, social media, etc. LabLearning workshops, called *labs*, following a Media Education approach [8] and building upon the experience of Computer Clubhouse Network of the MIT in Boston [9], offer an environment where digital technologies unleash creativity: shooting a music video-clip, presenting a photographic exhibition, telling a multimedia story, designing a social network, etc. Through these or similar challenges, educators and media expert help teenagers to increase their self-efficacy, create links with the community, gain new motivation for learning and stay (or come back) to school.

The remaining sections of this paper introduce the LabLearning project, illustrate some of the Labs that were carried out by the partners in different European countries, and finally focus on the labs evaluation and its main outcomes.

2 THE LABLEARNING PROJECT

2.1 Transforming assumption into approach

The key assumption behind LabLearning is that at-risk young people need to experience a different learning environment to rebuild self-esteem and trust in the educational system. The idea is that a media-rich, project-based informal learning environment can achieve that.

The first challenge was then transforming such assumption in a viable and understandable instructional approach, that could be actually used by teachers and educations and approved by their administrations. During the first phase of the project, LabLearning developed a methodology anchored to a few clear key principles:

1. Learning is done hands-on, through the actual production of media artifacts.
2. Learning happens in projects, where students face complex design and production challenges and are faced with the expectation of a concrete output.
3. Learning activities are organized in teams, where peer learning acquires importance
4. Learning happens in an informal setting, that is, learners experience a high degree of autonomy and no certification is foreseen.
5. Learning has a community dimension: the products of the learning process should appear in the community's public space.

6. Learning is intended to develop autonomy and self-esteem (self-efficacy).

Such principles were then the inspiring source for 8 Labs that involved teenagers in Italy (Ancona and Reggio), Denmark (Aarhus), Spain (Salt), Switzerland (Lodrino) and the Netherlands (Drenthe). Each Lab was unique, as they were the result of the dialogue between the five principles and local resources (especially educators' competences) and constraints. In particular, each lab selected:

- (A) A specific context, ranging from secondary schools to community centers;
- (B) A media challenge, ranging from digital storytelling to music video-clip production, to social media use;
- (C) Team composition
- (D) Number and profile of educators

The following diagrams offer a view of the Labs (colors indicate countries) and of their main features.

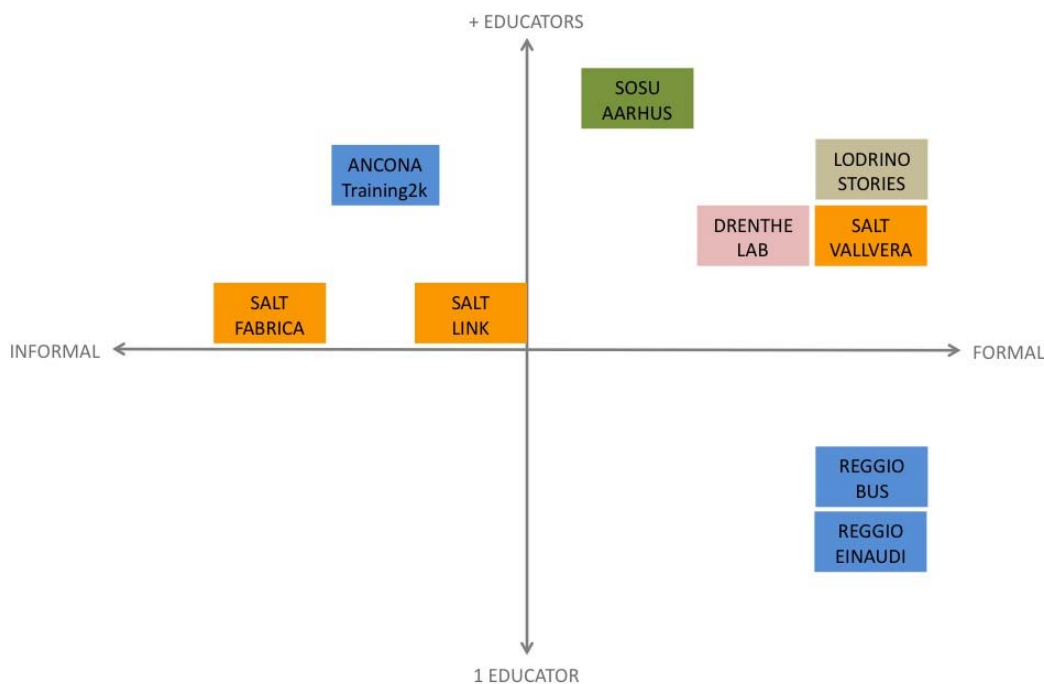


Figure 1 - Labs classified by number of educators and formality of learning context

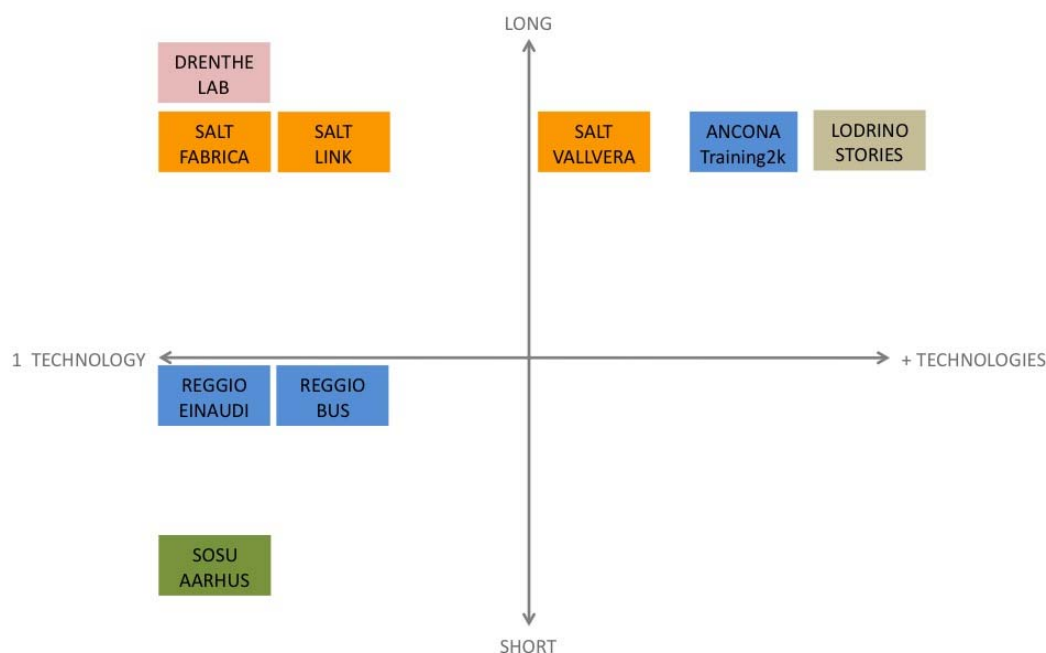


Figure 2 - Labs classified by duration and number of technologies used

The result is a very varied and heterogeneous setting: while providing an extensive “proof of concept” by localizing the LabLearning approach to many different “extreme cases”, this of course raised some issues concerning evaluation, which will be discussed below.

2.2 The labs

The following paragraphs illustrate some of the Labs actually carried out by the partners.

2.2.1 The Italian Lab: a picture exhibition in Ancona, Marche Region

The LAB was launched by Training 2000 (one of the partners) on 6 November 2012 after various presentations in local schools, youth centers and public information and guidance centers for youngsters (*Informagiovani, Centri di aggregazione giovanile*). The laboratory was organized in Ancona at Poliarte, a private, tertiary level, arts and design school. Ancona is the largest city of the Marche Region and has several problems with immigration and social inclusion of youth.

The laboratory started with 30 young people (age 15-19; 70% immigrant origin). 12 people attended relatively continuously the laboratory and completed the LAB with an exhibition. The participants, aged between 15 and 19, were 60% students, 40% drop out or unemployed and 70% immigrants.

The LABS was open twice a week (3-5 PM) for a total of 4 hours, over 5-6 months (started early November 2012 and finished late April 2013).

The participants were completely free to come and suggest projects based on their interests and abilities. All the process was completely bottom-up and free. The group of participants focused on three main areas: photography, video editing and videogame development. Other projects were about 3D modelling and video making. As results the participants produced a large amount of material (photos, videogames, stop motion, etc.) and shared it on facebook groups.

The activities in the labs were supported by 6 mentors and media experts. All mentors had a good level of digital competence. They had to undertake a significant learning investment in technical areas eventually tackled in the LAB, in order to provide effective support and guidance to the participants involved in it.

The LAB had from the beginning a strong connection with the local communities (meetings with schools and teachers, involvement of social services and youth centres, visits to other organisations, etc.). This connection was enhanced by the final exhibition. At the end of the LAB an exhibition with some products created by the participants (mainly photos, videos and video games) was organised in the premises of a cultural association (*Casa delle Culture*). This event was also an important learning experience for the young people that were in charge for the organisation of the exhibition (dissemination material, logistics, funding and other aspects).

The LAB has increased the participant's motivation to learn, self-esteem and competencies. The LAB gave the participants an attendance certificate and for those who are still at school, also some 'training credits' – which according to Italian school regulations can be certified outside school and are acknowledged to contribute to the formal educational achievement).

2.2.2 *The Swiss Lab: digital storytelling for youngsters at risk*

In Ticino, the most Southern Swiss canton, secondary school students that experience learning or relational difficulties attend a special program, called *corso pratico*. In that program, for 4-6 hours a week, they work in small groups and rehearse mainly language and Math. They are also supposed to do practical work and develop an orientation for their future studies or, more likely, vocational training.

The Swiss Lab was set up as part of the *corso pratico* in Lodrino, a medium-sized mountain village: 4 students aged 15 were challenged to develop their own digital story, following the Digital Storytelling for Development model [10]. The overarching theme, proposed through pictures of possible characters, was the encounter with the professional world. Students were then guided through story writing (focus on writing skills), illustration (focus on practical work and the arts), recording narration (focus on reading skills), and creating a final digital movie (focus on practical work and digital technologies).

The collaboration with their teachers was here fundamental, as it provided at the same time specific competences and anchorage to the current school program. Also, it offered an opportunity to think about a new, interdisciplinary and project-based, approach in school learning. The digital story produced will be premiered during an open school event, to connect this work to the local community, so to become an opportunity to "show who we are", as one of the participants put it.

2.2.3 *The Spanish Lab: engaging young people at risk with music and video*

Immigrants represent about 50% of the population in Salt, a rather typical Southern-European suburban city. This generated many youth integration issues, and of course puts stress on the formal education system. The choice in Salt was therefore to go for an informal learning setting, and try to engage young people that spend their afternoon on the streets.

Labs in Salt were coordinated by the municipality, which could count on Maribel, a very proactive coordinator of the youth centre, experiences and with strong connections with the local community. Such connection was a success factor of the Labs. Maribel found in Terenci a Media Expert with a technical high-level and large capacity for empathy, a combination that also contributed to the lab's success. Terenci has a package of 12 hours a week in an area of a few kilometres, moves on foot and knows many young people, with whom he has a close relationship. Terenci is a professional in the field, provides advertising and video clip services in Girona, where he is also teacher in a Master's program.

The Lab is an extracurricular activity for young people of different SALT' secondary schools between 16 and 19 years and motivated to make movies. A poster had been put up all'Estacio Jove for enrolment, and a group of young people actually showed up. Maia, a social educator, backed Terenci in leading the Lab twice a week, for 2 hours after the school is over.

Young people are given freedom in their work, but share their advancements with the educators, looking for advice and support. The challenge is making a "short movie" (actually, they come up with a music video-clip, where they are also the authors of the music), which was then presented during an official presentation with local authorities.



Figure 3 - Participants in Salt showing their diploma

2.2.4 The Netherland Lab: designing the school of the future

Drenthe College is a large vocational college with about 10'000 students and main locations in Emmen, Assen and Meppel. The college offers level 1-4 education for students age 16 years and older. The college is organised in educational clusters: Health and Welfare, Technology, and Business, Horeca (Hotellerie, Restaurant, Café) and Sports. Apart from these levels, Drenthe College also offers the AKA, a level 1 form of vocational education for students that experience difficulties in finding their way in the labour market or to college. This strand is integrated in the Health and Welfare department.

The lab experience involved about 50 AKA students age 16-21 years in Assen. These students are usually characterized by very low motivation and low self-esteem, and feel challenged by a job market that requires creativity and professional competences.

The idea of this lab was engaging students in designing an online platform that could support all students in making their learning experience better. As a start, the engagement of student was stimulated through a larger perspective: they were asked to provide insights and ideas about the ideal "school of the future". To facilitate this, instead of a dry survey, the Lego Serious Play methodology was used (LSP; www.seriousplay.com), thanks to the support of a qualified trainer and consultant. This allowed in depth reflection about their learning practices and relationship with digital media.

The result was astonishing. These students contributed to the design of an online application for creating a meaningful and consistent portfolio during their professional practice periods or internships. Also, the platform would support interaction with teachers and tutors, to facilitate communication also when students are not present in the college. With this application, which is now actually in use under the name of DC-Extra, staff at Drenthe college intends to experiment in order to experience social media, extend learning time during practice periods, and allow teachers to connect to students' perceptions – with the ultimate goal of enhancing students' motivation.



Figure 4 - Students at work in Assen

3 OUTCOMES AND LESSONS LEARNED

3.1 Evaluation and diversity

While this variety provided a wealth of experimentation setting and provided a detailed “stress-test” of the LabLearning approach, it posed a challenge in terms of evaluation: what are the key points that make a digital media project-based approach a successful re-motivation lab? Of course, not direct one-to-one comparison was possible.

SUPSI-DFA was in charge of the evaluation of the Labs, and decided to run it through a qualitative study based on narratives. Each partner was therefore asked to engage in a wide collection of qualitative data that offered a multi-faceted vision of the Labs. Each Lab had to be documented through three main foci of information:

1. The learners' voices
2. The educators' voices
3. The community voices.

Each focus was illustrated with different products by different Labs: the students’ products and their reflections; the educators’ reflections, either as text or through a video or comments to pictures; a focus group with community members, etc.

Using qualitative approach, the analysis tried to build a consistent narrative out of each lab, and then, following a grounded-theory-inspired approach, to identify consistent features across the labs.

3.2 Main outcomes

3.2.1 *Young people's voice*

The main outcomes of the evaluation indicate that the Labs were exciting and rewarding experiences for all participants. In all cases, the source documents reveal high motivation, both on the side of learners and on that of educators.

As some participants put it, this was finally a learning setting in which they are “active” and “can take responsibilities”. Most of all, they appreciated that “you are allowed to do what you are good at” and give a contribution to the common project using their best skills, not being told what to do.

The rhythm of learning becomes fast in the lab, and is more engaging. You can “learn through playing”, and these labs are a way to “learn outside the classroom” in an effective way.

Concerning the use of media, students discovered a new way of communicating and of exploring meaning. However, some noted that time was short, and they discovered they need more time than they thought to complete their projects. Indeed, actual media production skills were lacking for these students, and the support of competent media experts is paramount in this kind of activities.

Participants also enjoyed working in groups, as they think that this is always a good way to learn. Productively working with peers was indeed a discovery for many. In some cases, participants remarked that the group generated difficulties: the best groups are small ones, where nobody remains in the background.

3.2.2 *Educators' voice*

Educators also provided a fully positive picture of the Labs. Their overall impression is that students participated in the lab with great engagement, characterized by “joy” and “humour”. Learning became more engaging, meaningful and challenging”.

In formal settings, this improved the “traditional class”. The educators indicated that they observe “more dialogue” during the activities, both between peers and between teachers and learners. In some way, the class “becomes a dialogical class”, the labs break down some barriers and established a new teaching and learning agreement. Participants “find and communicate knowledge in new shapes”. While this change is welcomed, it also “places new demands on classroom management. The teacher is someone who helps structure knowledge rather than just bringing it to students...”.

The big difference of the labs is in the learning process: students “express attitudes, feelings and values”, things that apparently find little space in other learning settings. Also, students work with their body and senses, so that the aesthetic dimension becomes central to the learning experience. One mentor states that “it was definitely the visual dimension (...) that appealed to many of the students. They said it was just the right way for them to learn”.

Using digital media allows the application and improvement of young people's IT skills, which is in itself a value. From the point of view of the educators, the integration of digital technologies pushed them to a “didactical re-thinking” of their practices.

The challenge was won: students engaged lively in the activities, generated useful insights and also good products. Providing a space where students can get creative is a good bet: you get more than what you think. Indeed, some educators got “surprised” by the young people involved!

3.2.3 *Community voice*

Connectedness with the community was important to the Labs. First, it provided a sort of external legitimacy of the learning process – something often missing at school – and gave emphasis to achievements. Second, engaging the community was important for the community itself, that can rethink about their “problem youth” and develop trust.

Listening to community voices emerged during the project offers a perspective on the quite fragile connection between communities and their educational agencies. Such fragility makes the situation twice as delicate: schools are not connected with their local realities, so that learning appears “abstract”; on the other hand, communities delegate education to external (even it state-owned or

state-regulated regulated) entities. In many cases, the labs were opportunities where two worlds – education and social life – met again and discovered they have a lot to share.

4 CONCLUSIONS

One general conclusion, which is subtle but relevant, is that the core impact of the Labs was not generated by the use of technologies, rather by their embedding into project-based and autonomous learning activities. Under this respect, technologies were the catalyst that allowed a re-thinking of education, challenged some assumption and provided a sparkle – something that has been reported in many educational projects [11].

Of course, Labs break the educational routine, and require a lot of work, which was available because of the availability of motivated and skilled collaborators. Also, working in the lab was new to student – possibly, a “novelty” effect is also to be taken into account. Can such a model be sustainable in a formal school setting? Such an issue is still open, and will require further consideration.

Some of the experiences in LabLearning (Lodrino, but also in Vallvera) were part of formal curriculum. That is possibly the best setting for exploring these issues. For example, comparing lab and non-lab classes, comparing groups of at-risk students with “regular” students, and finally understanding similarities and difference between in-school and extra-school lab activities.

Another issue concerns the fact that Labs seems to be effective for motivation, but are probably less effective for content learning. This suggests that they should become one key ingredient of a new approach to education, but not replace existing educational and schooling practices as a whole.

To make a long story short, we can simply state that the challenge was won: Labs were useful and had a positive impact under all respects. What the LabLearning experience indicates is that new approaches are possible that consider at-risk and drop-out students not as “unfit” for schooling, but demanding a different form of learning, which allows them to become – to their eyes and for their school system – what they are: not a problem, but a resource.

REFERENCES

- [1] New Skills for New Jobs Expert Group - NSNJ (2010). *New Skills for New Jobs: Action Now!* Bruxelles: European Commission.
- [2] Downes, P. (2011). The neglected shadow: European perspectives on emotional supports for early school leaving prevention. *The International Journal of Emotional Education*, 3(2), 3-36.
- [3] Van Alphen, S. (2009). The educational quality of early school leavers and the cross national variation of their income disadvantage. *Educational Research and Evaluation*, 15(6), 543-560.
- [4] Joint Committee on Education and Skills (2010). *Staying in Education: A New Way Forward. School and Out-of-School Factors Protecting Against Early School Leaving*. Ireland: Houses of the Oireachtas.
- [5] May 2010 Trueba, H. T., Spindler, G., & Spindler, L. (1989). *What do anthropologists have to say about dropouts?* New York: Falmer Press.
- [6] Prensky, M. (2005). *Don't bother me mum – I'm learning*. New York: Paragon House.
- [7] LabLearning (n.d.). *LabLearning website*. Retrieved July 10th, 2013, from <http://www.lablearningproject.eu>
- [8] Rivoltella, P. C. (2001). *Media education. Modelli, esperienze, profilo disciplinare*. Roma: Carocci.
- [9] Computer Clubhouse Network – CCN (n.d.). *Computer Clubhouse Network website*. Retrieved July 10th, 2013, from <http://www.computerclubhouse.org/>
- [10] Botturi, L., Bramani, C., & Corbino, S. (in press). Digital storytelling for social and international development: from special education to vulnerable children. *International Journal of Art and Technologies*.
- [11] Botturi, L. (2003). *E2ML Educational Environment Modelling Language*. University of Lugano, unpublished doctoral dissertation [available on <http://doc.rero.ch>].