Scuola democratica First International Conference

Proceedings of the 1st International Conference of the Journal Scuola Democratica

EDUCATION AND POST-DEMOCRACY

5-8 June 2019 Cagliari Italy

VOLUME II

Teaching, Learning, Evaluation and Technology

ASSOCIAZIONE "PER SCUOLA DEMOCRATICA"

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Via Francesco Satolli, 30 – 00165 - Rome, Italy

Edited by

The Organizing Committee the 1st International Conference of the Journal Scuola Democratica

https://www.rivisteweb.it/issn/1129-731X

Published by

ASSOCIAZIONE "PER SCUOLA DEMOCRATICA"

Via Francesco Satolli, 30

00165 – Rome

Italy

FILE IN OPEN ACCESS

This book is digitally available at:

http://www.scuoladem ocratica-conference.net/

ISBN 978-88-944888-1-4

Title **Proceedings of the First International Conference of the Journal "Scuola Democratica" - Education and Post-Democracy VOLUME II Teaching, Learning, Evaluation and Technology**

This volume contains papers presented in the First International Conference of the Journal "Scuola Democratica" which took place at the University of Cagliari on 5-8 June 2019. The aim of the Conference was to bring together researchers, decision makers and educators from all around the world to investigate the concepts of "education" in a "post-democracy" era, the latter being a set of conditions under which scholars are called to face and counteract new forms of authoritarian democracy.

Populisms, racisms, discriminations and nationalisms have burst and spread on the international scene, translated and mobilized by sovereigntist political movements. Nourished by neo-liberalism and inflated by technocratic systems of governance these regressive forms of post-democracy are shaping historical challenges to the realms of education and culture: it is on this ground, and not only on the political and economic spheres, that decisive issues are at stake. These challenges are both tangible and intangible, and call into question the modern ideas of justice, equality and democracy, throughout four key dimensions of the educational function, all of which intersected by antinomies and uncertainties: ethical-political socialization, differences, inclusion, innovation.

The Conference has been an opportunity to present and discuss empirical and theoretical works from a variety of disciplines and fields covering education and thus promoting a trans- and inter-disciplinary discussion on urgent topics; to foster debates among experts and professionals; to diffuse research findings all over international scientific networks and practitioners' mainstreams; to launch further strategies and networking alliances on local, national and international scale; to provide a new space for debate and evidences to educational policies. In this framework, more than 600 participants, including academics, educators, university students, had the opportunity to engage in a productive and fruitful dialogue based on researches, analyses and critics, most of which have been published in this volume in their full version.

ISBN 978-88-944888-1-4

Premise

Since 1973, with Chile's Dictatorship as a neoliberal 'laboratory', it's more than 45 years that the Global Education Reform Movement has transformed educational systems all around the world through a discourse rooted on epistemic and ideological hegemonies. A new 'truth' of the homo economicus as able to rationally and freely pursue its interest as self-entrepreneur is relentlessly spreading: the Human Capital paradigm then connects individualistic choices and personal skills to impose diverse educational tracks through a Life-Long-Learning investment. Thus, the restructuring of the Education State, thanks to policies of privatization, competition and high stakes accountability, has implied a new ethics challenging social justice ideals.

The massification of educational systems in Europe and worldwide, together with the increasing demand for their democratization, have profoundly challenged traditional teaching models: the lecture, the magister teacher and the specific spatial-temporal devices aimed at disciplining students according to the needs of a Fordist capitalist society and to the reproduction of class inequalities. Starting particularly from the Fifties in schools, and more recently in higher education, new teaching-learning configurations have been explored and developed: situated and participatory didactics aimed at involving students in a reflexive relationship with knowledge and social reality; new ways of hybridizing formal and informal learning; new pedagogies exploiting the possibilities inscribed in new medias and digital technologies. These practices, sometimes radically, revers theory and practices in order to develop student-centred learning processes. The thematic sessions within this stream explore the challenges, tensions, ambivalences and potentialities of pedagogies and didactics innovations involving school and university teachers, students, as well as their surrounding environments: the physical, architectural, material and technological spaces that constitute a crucial component of situated learning processes.

The relation between education systems and policy making changed in the last decades, consequently to three innovations sharing the common paradigm of evaluation, namely: the establishment of national/international large-scale testing, the diffusion of systems assessing schools' and the raising interest for efficacy and cost-effectiveness of education interventions. These innovations have been highly debated from different and controversial perspectives. The aim of the conference stream is to collect papers focused on actual uses of different forms evaluation, in order to overcome previous ideological oppositions, contributing to move the debate into a more pragmatic and fruitful phase.

Further issue: How is digital technology changing education? Online schools and classes are becoming widely available; backpack of many

high school and college students, instead of physicals textbooks, are now carrying iPads and various forms of devices connected to online; teachers now have more ability to personalize lessons, instructions, and projects for each group or student; by using devices and programs to distribute classwork and assignments, they can even personalize lessons and focus on the work of each student; increased opportunities and constraints for students to collaborate together from a variety of places becomes possible; free online classes called "MOOC's" otherwise known as Massive Open Online Courses are becoming widely popular. Finally, a mounting set of variegated pressures to produce pedagogical innovation in teaching and learning is being addressed to teacher and school staffs. Even the governance of school system and school-daily life as a whole is undergoing a wide process of digitalization. But what does the increase in digital technology and approach mean for the current times? Although many advantages come with digitalized learning, there are also disadvantages that researchers, educators, academics and professionals are aware of, including and not limited to minimal to zero face-to-face interaction in the classroom and the lack of ability to work in person with study partners and teachers. Any conversation that does not include the potential dangers of the widespread use of technology would not be complete. Therefore, the stream focuses also on the interplay between learning theories and technologies. Both learning theories and tools are composed of multiple attributes, and they refer to many aspects and facets which render educational technology highly complex. Evolution in both theory and technology reflects no clear successive breaks or discrete developments, rather, waves of growth and accumulation. Evolutions in society and education have influenced the selection and use of learning theories and technologies; learning theories and technologies are situated in a somewhat vague conceptual field; learning theories and technologies are connected and intertwined by information processing and knowledge acquisition; educational technologies shifted learner support from program or instructor control toward more shared and learner control; and learning theories and findings represent a fuzzy mixture of principles and applications.

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Neoliberalism in education. The case of Chile and social transformations over the past 40 years

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KEYWORD: *Education, Neoliberalism, Visual arts, Chile*

Introduction

This article analyses how the Chilean military dictatorship transformed the Chilean society and particularly the education system so profoundly, that almost 30 years after the return to democracy, neoliberal policies installed mainly in the 1980s continue to prevail. We wonder to what extent the current educational system exhibits elements of segregation, inequality and elitism, and how they manifest themselves. In the case of the visual arts, does artistic development in schools reproduce the defects of the current educational system? Does the type of arts education depend on the type of educational institution?

To provide some context, we will first give an overview of the Chilean education system in three parts: during dictatorship (1973-1990), after return to democracy (90's), and in current education system (since 2000). Subsequently, we present our field work, analyzing the discourse and practice of teachers through interviews and observations of first cycle visual arts classes.

1. Military dictatorship (1973-1990)

The military coup in 1973 and the subsequent dictatorship under Augusto Pinochet marked a profound change in the history of Chile, where deep social, economic and political transformations took place. The transformations of Chilean politics were elaborated by a group of economists of neoliberal inspiration who studied in Chicago, known as the Chicago Boys. These economists, sociologists, education experts, wrote a handbook titled The Brick (El ladrillo, 1992), which is considered the basis of the economy during Chilean dictatorship. It required, among other things, the liberalization of prices and reduction of volume in the public sector. Regarding the education system, the Chicago Boys proposed modifications and interventions at the administrative and academic level by privatization. The main proposals were: *i*) University and technical education: According to neoliberal logics, higher education is a benefit for the student and therefore gratuity is not justified; *ii*) Financing of educational establishments: A system of vouchers or subsidies was created. The state financed schools based on the attendance of students per class, for private and public schools alike. Thus, the state provided resources to private institutions for profit without real supervision of the management, bolstering the development of the private sector. In the resulting 'market competition', schools had to 'fight' to attract students to receive subsidies. *iii*) Decentralization of school administration: Schools no longer depended on the Ministry of Education, but on delegated administrators (*sostenedores*), who were responsible for the administration of state subsidies and the decision-making about the daily live in each school, including the curriculum, the appointment of principals, and employments and dismissals of teachers. As a result, the state and the ministry of education were no longer directly responsible. The ministry of education only formulated general

policies, regulated minimum curriculum requirements, and provided basic financing for each student. This process directly affected citizens as social inequalities increased. Longo (2001) describes the great differences between Chilean neighborhoods or communes. These differences increase with decentralization, since wealthy communes receive from the state the same amount of subsidy as the poorer communes. This model was officially enacted by Pinochet on March 7, 1990, and applied on March 10, the last day of the military dictatorship, under the name of Organizational Constitutional Law on Education (*Ley orgánica constitucional de educación*, LOCE).

2. LOCE and the years 1990s

LOCE is the emblematic law of the dictatorship in the matter of education that protected the measures taken in the eighties and that persists until 2009. It allowed the ministry of education to be actively involved in the functions of private-subsidized schools, and, conversely, to be only loosely involved in the supervision of public schools. Several authors explain that the LOCE caused a tear-down of public education, by establishing, validating and normalizing commercial and free-market logics. These logics also affected artistic education deeply, since the military dictatorship was not only a coup d'état, but also, as Errazuriz (2005) commented, an aesthetic coup. Institutional art was relegated to the background by censorship of works, artists and themes, as well as reduction of art hours in schools and curricular modifications.

The main consequences of LOCE were an increased number of subsidized and private schools, an increased budget for the private sector, and a significant migration of students from the public to the private sector.

Longo (2001) refers to the Pinochet reform of the 1980s as a counter-reform that sought the destruction of the public education system through decentralization of resources and administration. One of the immediate consequences was the mounting difference in conditions and resources between municipalities and schools, and that «culture and education became goods that families can buy at different prices [...] the most important transformation that these policies brought to the Chilean education system concerned the reduction of school knowledge to consumer products that different social classes buy according to their resources».

Since 2000, the Chilean education policies were modified in various attempts. In the 'penguin revolution' of 2006, students took to the streets demanding 'public and quality' education, mainly by requesting the abolition of the LOCE. In a climate of unrest, María Huerta, one of the student leaders, said in an interview that the objective of the movement was to eliminate inequality in education, immediately and definitively. The movement's spokeswoman highlighted the relationship between different social classes and their access to a good education. In 2011, university students again took the streets with strong citizen and international support to demand free and quality education.

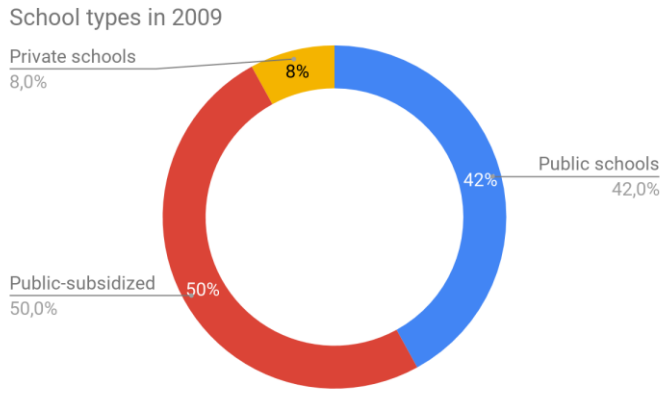
There are different opinions with regard to the modifications, evolutions and improvements of education after the end of dictatorship. Cox (1997), for example, explains that the educational policies implemented in the transition government have had a clear intention to improve the conditions of the educational system and the quality of education. Cox (1997) uses the term democratic transition to refer to governments elected after the military dictatorship. Several authors use this term to refer to the governments of the 1990s. On the contrary, Corvalan and Huidobro (2015) explain that the democratic governments have

been particularly silent regarding the established relationship between the neoliberal economy and education.

3. The current educational system

Currently, there are three main types of educational administration: Public education provided by municipalities, private-subsidized education, and fully private education (Cornejo, 2006). It is necessary to point out that when we speak of the current system, we refer to the education system until 2015, since under the second government of Bachelet (2014-2018) a new law was enacted that sought to change the established system. See school inclusion law.

Figure 1. *Types of schools*



Source: Personal Elaboration

3.1. Public system

The public schools correspond to institutions that depend on the state and are free and open to all children living in the national territory. Public schools accounted for almost 80% of national schooling. But with the reform and the creation of subsidized private schools, the percentage of students enrolled in the public system has been gradually decreasing.

3.2. Private-subsidized system

Subsidized schools have been part of the Chilean education system since the mid-19th century, but they have been consolidated since 1981. These schools have the dual status of a private administration as 'cooperation with the educational mission of the state'. Its resources come mainly from the state and secondarily from the parents or guardians of the students, which is called 'shared financing'. These schools conduct admission tests on students.

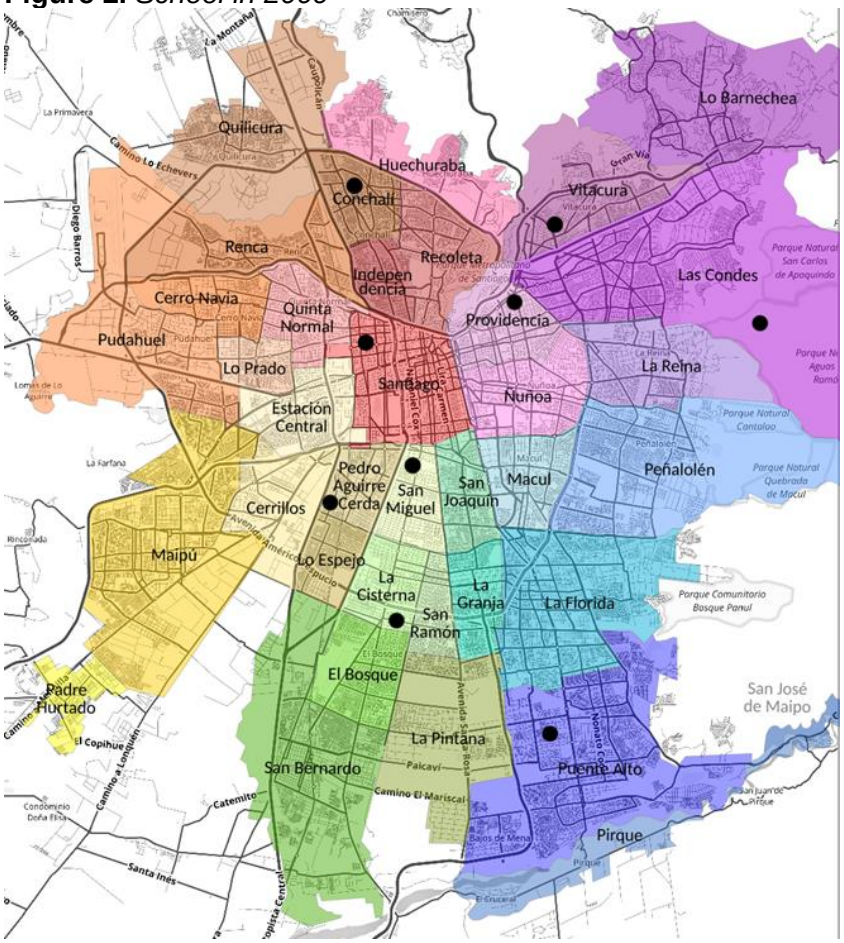
3.3. Private system

Private schools are independent of the state. They do not receive any government funding and are privately managed and funded. Admission of students also depends on an entrance test.

It is generally recognized in Chile that paid private schools educate the most socio-economically privileged, private-subsidized schools attract middle-income families, and municipal schools attract the poorest sectors of society. According to Cornejo (2006), private schools have constantly accounted for 8%-9% of Chilean students over the previous decades. The case of subsidized education is different: in 1980 it accounted for only 7% of students, by 2001 the portion

increased to 37%. Of the 3,500,000 students in 2009, 42% attended public schools and 50% attended subsidized schools (Espinoza, 2012).

Figure 2. *School in 2009*



Source: Personal Elaboration from Espinoza (2012)

4. Methodology

We conducted a qualitative study with mixed analysis on public, subsidized and private schools in the metropolitan region of Santiago de Chile. We conducted 125 observations in the first cycle of visual arts classes in the four school types, and 44 semi-directive interviews with teachers who were conducting first cycle visual arts classes in diverse educational contexts. To illustrate the sample, we present a map of the metropolitan region indicating the communes of the schools in our study.

Figure 3. Map of the metropolitan region
Source: OpenStreetMap

We carried out a thematic analysis of the interviews by categorizing all occurring topics. In this article we focus on two topics: the type of school in which the teacher currently works, and the course of the art class he conducts. We also analyzed the class observations by types of school using a standardized form.

5. Results and analysis

5.1. Schools

We found that private schools show more factors that influence the proper functioning of visual arts classes than public schools and private-subsidized schools. Especially aesthetic appreciation and literacy, communication of objectives, teaching of various visual languages, museum visits, and the analysis of art pieces are more common and are addressed more deeply in private schools than in public or subsidized schools. The differences between public and private-subsidized schools are rather smaller regarding these factors.

Most teachers in both public and private-subsidized schools reported a lack of resources for the art class, while private school teachers did not.

Another central topic in the field work were standardized tests and measurements, specifically the National System of Evaluation of Learning Outcomes (Sistema nacional de evaluación de resultados de aprendizaje, SIMCE). Most teachers in public and subsidized schools felt pressure due to this test, and explained that subject matters under evaluation by the SIMCE (for example mathematics and Spanish) are prioritized at the expense of 'minor' subjects such as visual arts. Importantly, the score obtained in the test affects the amount of subsidies received by the school. By contrast, teachers in private schools generally did not report any pressure due to SIMCE and reported similar opportunities for the development of all disciplines. Often, art education even constitutes an attractive and characteristic element of private schools, to present itself to the public, and to position itself as schools where art and culture are considered fundamental for the development of the student.

5.2. Teachers

We observed that private schools employ more specialized art teachers than public schools; this influences the teaching of contents and the focus in the class. Non-specialist teachers have a more manual or artisan approach, whereas specialized teachers usually focus on 'aesthetic appreciation' and the development of critical thinking. Likewise, teachers at private schools have more facilities and space to develop aesthetic and perceptual aspects of art.

Teachers at public and private-subsidized schools tended to more 'familiar' relationships with students than teachers at private schools. As a consequence, these teachers often go beyond their mere pedagogical obligations by responding to emotional and family conditions of the students. This work is often carried out during lessons, influencing the conduction of art classes.

Conclusion

We can conclude that the Chilean education system establishes a selection of students mainly based on the socio-economic level of the families, which reinforces inequality and school segregation. At the example of the artistic discipline, we affirm that the arts in schools and cultural development are affected by these patterns and by differences between school types.

We observed great differences in the quality of arts education between private schools on the one side, and subsidized and public schools on the other. However, the quality of teaching and the transfer of artistic content were comparable between public and private-subsidized schools. The observed differences were primarily social, in the sense that children from families with sufficient resources attend paid schools, whereas the others go to public schools. As a result, students do not mix but group according to their socio-economic

level, perpetuating school segregation. According to Atria (2012) families are assured when their children stay with other children of the same (or a higher) social level as theirs.

From the presented evidence we can derive that the visual arts class reproduces the defects of the current educational system, i.e., a segregated and elitist system, dominated by the selection of students. The discipline of visual arts is only well-developed in private schools where children have specialized teachers from the first years of schooling and where children are motivated and stimulated to work with different materials, appreciate works of art and artistic movements, and have better access to museums, galleries and artists. In public schools, art classes are rather relegated to a 'manual' pastime. Public schools instead focus on disciplines such as mathematics and language, to compete in standardized tests and to respond to the demands of the established system. Ultimately, arts education remains a distinctive element of a certain type of education: an education that stimulates integral development and critical thinking but that belongs only to an elite of the Chilean society.

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Three proposals in adult education to improve employability

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KEY WORDS: *lifelong learning, employability, technical professional studies, entrepreneurship, non-formal education.*

Introduction

This work tries to show the implementation of three proposals to improve employability in the Adult Education Centre CEPA Antonio Machado. First and second proposals, i.e., technical professional studies and *¿Cuál es tu vaca?* have been carried out during the academic years 2017-2018 and 2018-2019, and the third proposal, *English for restaurants*, during the present year 2018-2019.

Adult education and lifelong education have become, during the twentieth century, a powerful tool in the societies all over the world (Field, 2001). Considering a milestone *The Meaning of Adult Education* of Lindeman (1926), the three fundamental concepts of adult education are developed all along the century: lifelong education, lifelong learning and life wide learning (Jackson, 2012). They are three similar but rather different concepts. That triple plays a crucial role to ensure active citizenship in society (Zepke, 2013). Among them, the most influenced one by economic aspects is lifelong learning (Jenkins et al., 2003). The European Union takes account about the importance of lifelong learning as a way to improve employability in the European area and definitely bets for adult education and lifelong learning (Commission of the European Communities. (2006)). The aim of this paper is to show three proposals in adult education to improve employability: technical professional studies (Ministerio de Educación y Ciencia, 2006), entrepreneurship program *¿Cuál es tu vaca?* (Diputación Provincial de Segovia, 2018) and the course *English for restaurants* framed inside the non-formal education (Trilla, 1992), carried out by Adult Education Centre *CEPA Antonio Machado* in the city of Segovia in Spain.

1. Technical professional studies

This kind of Spanish studies has the aim of improving the qualification of citizens in order to reach better jobs. That fact coincides with the explanation of the European Commission (2011) in *The future of learning: preparing for change*, section 5.2 Challenge 4: Transition from school to work,

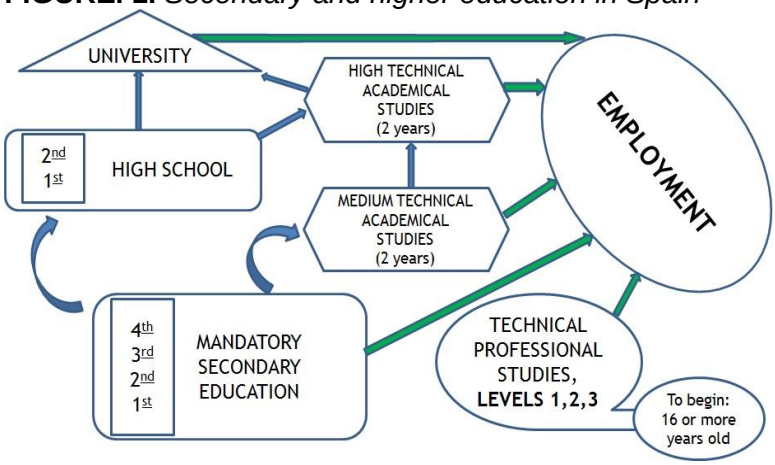
> Lifelong learning policies across Europe aim to improve permeability between different education and training systems, so that people can progress vertically (raise the level of their qualifications and competences) or horizontally (broaden their achievements, re-qualify or change learning pathways)

Furthermore, talking about re-qualifying, one can find in the same document, in section 5.3 Challenge 5: Re-entering the Labour Market,

> Effective incentives for lifelong learning and second-chance opportunities are needed, coupled with systems for recognising acquired competencies, and a focus on efforts supporting those with low skills

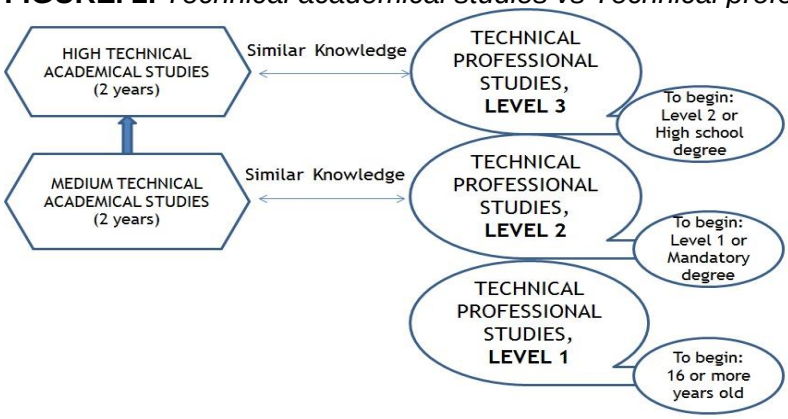
In Spain, once arrived in mandatory secondary education, students have some ways to reach higher education levels, as explained in the next figure.

FIGURE. 1. *Secondary and higher education in Spain*



Non-university technical studies are split in two branches: technical academical studies and technical profesional studies, as shown in the next figure,

FIGURE. 2. *Technical academical studies vs Technical professional studies*



A question that arises naturally is: Are the two branches necessary?, or maybe Spanish government could endow qualification to citizens just with one of them. The two branches are necessary because of some reasons; these are some of them:

- Different type of students: for one hand, in technical academical studies the students are usually teenagers and youths from 16 to 20 or 22 years old, who come from mandatory secondary education and who want to reach higher levels in an experimental branch of education. That is not a rule nor a law, people from 16 years old and with mandatory secondary education degree can begin these studies but people over 30 years old are very unusual in these branches of technical studies. On the other hand, in technical professional studies it happens the other case: students are usually adults up to 30 years old, that have been working for a long time and who want to get qualification to improve their job conditions.
- Different conditions to get in: while getting in technical academical studies requires mandatory secondary education degree, that is not necessary with level 1 of technical professional studies. This is the reason why

many people choose technical professional studies (among them, everyone who have not got mandatory secondary education degree). One can begin in level 1 of technical professional studies and then continue to level 2 and 3.

- Different affections to knowledge and learning: students of technical academical studies have much more motivation to learn just for the reason of acquiring knowledge and skills. That does not happen with students of technical professional studies whose main reason is to get qualification to reach better job conditions.

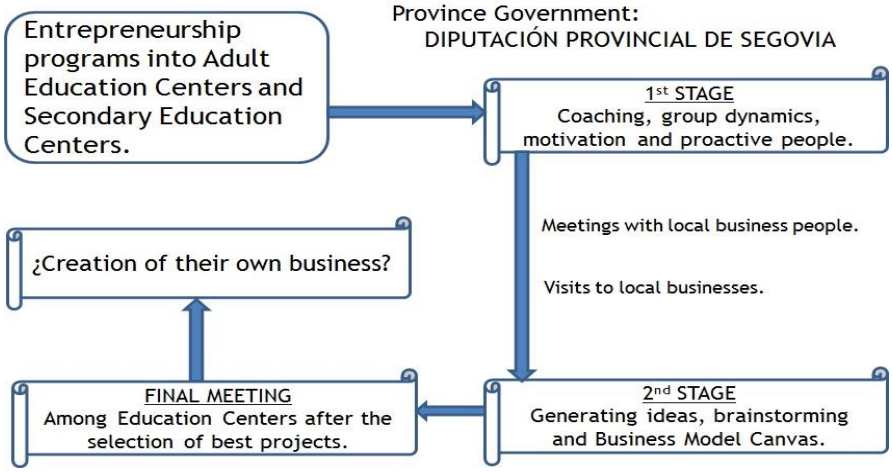
There are other less important reasons to promote the two branches of technical studies but those are the most important ones.

2. Entrepreneurship program *¿Cuál es tu vaca?*

Entrepreneurship has turned on a good way to create an own job and to gain skills and experience at work. Moreover, entrepreneurship can be well framed into situated learning so it can be used to insert, in labour market, citizens of low socio-cultural and economic levels and under risk of exclusion (Niemeyer, 2006). Furthermore, students of an entrepreneurship program have more possibilities to start their own business and increased their competencies and intention toward self-employment (Sánchez, 2013). As find in (Álvarez Marqués, Alburquerque, 2012).

> Actually several studies and authors underline the importance of (early) entrepreneurship education to the creation of an entrepreneurial and innovative culture of social and economic change. This requires models of education more focused on preparing people for tomorrow's labour markets and for a more unpredictable and complex society, as well as new policies especially target for this area. Assuming that entrepreneurship skills can be taught and that they should be considered as a general attitude, useful in all work activities and everyday life, the discussion about teaching goals and methodologies is very relevant.

FIGURE. 3. *Stages of the entrepreneurship program ¿Cuál es tu vaca?*



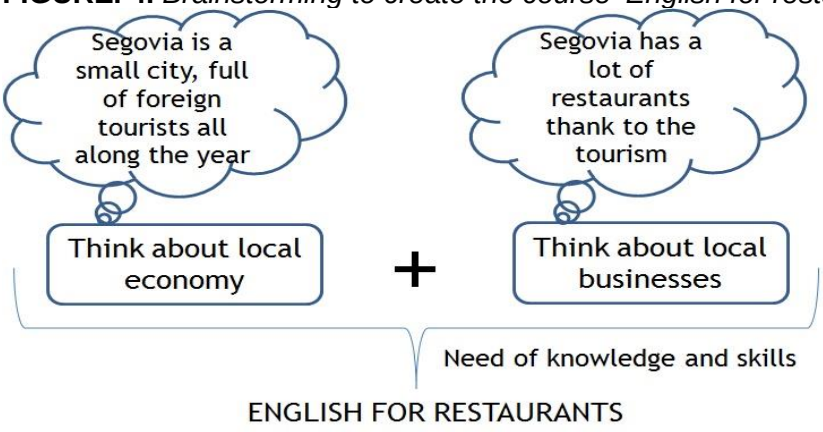
The entrepreneurship program *¿Cuál es tu vaca?* is an initiative of province government *Diputación provincial de Segovia* in order to introduce entrepreneur knowledge and skills into Segovia education centers (schools, high schools and adult education center). The program consists on some stages that take place firstly in the education center and secondly in local businesses. As shown in the

next Figure 3, the aim is to create pro-active people among students through coaching, group dynamics and motivation activities; after that, students are asked to discover the Business Model Canvas through the generation of ideas and brainstorming; the final step is a meeting among education centers, like a final match, to decide what projects are the best. Obviously, the aim of educative system is to teach students about entrepreneurship and to show them a professional way for the future.

3. Non-formal education courses: *English for restaurants.*

Non-formal education has arisen thank to the research of Phillip Coombs (Coombs, 1971) on global education crisis of the seventies. From that cornerstone, non-formal education has been developing towards its relation with economic affairs (Ahmed, 1975) and as a powerful tool against rural poverty (Coombs and Ahmed, 1974). Since its origins, non-formal education is linked to economic aspects of society, so one of its main aims should be labour market and employment. That is the reason why CEPA Antonio Machado of Segovia has begun the non-formal education course *English for restaurants*. The sequence of thoughts happened as represented in figure 4. The main goal of this course was to endow restaurants employers' basic knowledge about English in general and specific vocabulary and expressions about restaurants, meals and food.

FIGURE. 4. *Brainstorming to create the course 'English for restaurants'*



Conclusions

As conclusions we show that education actions into adult education and through lifelong learning in general are necessary, not only to improve employment but also to endow citizens qualification skills and knowledge tools to face active citizenship in 21st century.

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Rethinking adult education: actors and dynamics of life-long learning policies

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Keywords: *Adult education, Practices, Actors, Democracy, Neoliberalism*

Introduction

The transition from the 'European Social Model' to what is now called «social investment state» (Giddens, 2014) is the theoretical perspective in which some dynamics of lifelong learning policies can be understood. The objective is to bring social protection inside the market space (Pitzalis, 2018). This project summarizes the terms of the attacks on public inclusion programs and the impact on the relationship between the individual and society. The governments' austerity policies threaten the social cohesion and the unity of the European Union itself. They also lead the main countries to modify their actions towards citizens, now achieving a higher level of autonomy and responsibility. This will apply in several fields, such as the search for a job and the diminishing guarantees related to it, exposing the society to new fragmentation processes (Gallino, 2012). Moreover, within a neoliberal political agenda deeply oriented to express a new perspective for welfare activities, globalization process has caused a fracture between the social system and the actors (Boltanski, 2005).

Given these premises, how is it possible to re-think Adult Education policies with an emancipatory approach aimed at all people, especially migrants, one of the main educational target in democracy (Allmendinger, 2019)? How is the adult education actors responding to the new social protection needs emerging as a consequence of the financial crisis (Milana, 2016)? The attainment of some opposite dynamics, the decrease in number of interventions and the needs of shared tools are primary indicators of the challenges that must be overcame. In this regard, expect a new monitoring system, which gives us a more articulated reading of reality and a reliable evaluations of policies and practices (Milana and Holford, 2014), and the development of models which are able to understand the trajectories of social exclusion, giving the right consideration to 'learner's voices' «to investigate how nowadays education affects young adults' life trajectories by reconstructing their biographical paths and exploring relations between education, work experiences and life trajectories» (Palumbo, Pandolfini, 2015: 10).

The aim is not only to increase workers' employability, countering the obsolescence of existing skills but also to encourage active participation in society and to promote a sense of autonomy, which are all assumptions of every mature democracy (Fortini, 2017). The target is to contribute to the discussion about the results of the lifelong learning policies in the public sphere, by sharing the elements of the produced analysis with the scientific community.

1. Actors and contexts to the test of reform

The liberalization of worldwide trade, placing all the players on the planet in competition, caused an acceleration of the processes of productive innovation. Thus, increasing the risks of obsolescence of the labor supply's skills. In its

continuous effort to rationalize available resources, companies also tended to correlate levels of employment to the short-term demand by reducing the numbers of stable workers (Beck, 2000). It appears evident, in these conditions, the need to have an educational system capable of training high-qualified employees, also raising the capacity to learn new ways of working in the course of time. Subsequently, there is an interpretation of adult education directly related to the needs of retraining the workforce, and the answer of European institutions to the global economic crisis is expressed in the 'Europe 2020' strategy, that combines knowledge and innovation.

It is in this theoretical framework, in particular in local contexts, that lifelong learning strategies become very significant. The paradigm shift involved in the transition from 'Adult Education' to 'Lifelong learning' implicates the historical perspective and the institutional dimension (De Luca Picione et al., 2017). The interventions and the design of the target policies lie within these, with the hypothesis that several factors are fostering the hybridization of national 'Vocational Education and Training System' in Europe (Hodge et al., 2017). The practices of lifelong learning for the social inclusion of European citizens have a number of specific characteristics descending from the different institutional contexts. The different national guidelines and organizational structures at the local level, where most decisions are made in order to combine efficiency and flexibility of intervention should be taken into account for the implementation of any new-operating model of adult education.

The institutional dimension of italian lifelong learning policies have the new feature of the CPIAs (Adult School Centers), link between the education system entrusted to the state and the training system entrusted to the Regions (De Luca Picione, 2014; Landri, Vatrella, 2017). The Adult School Centers as eterotopic space? Although Foucault (1984) describes heterotopia as an actually existent utopia, the conception is not tied to a space that promotes any promise, or any form of change. The implementation of these Centers is an opportunity for all the actors involved, called to promote learning and knowledge for a particularly heterogeneous adult audience which differs by age and geographical origin, considered at risk of social exclusion, such as immigrant population. How are educational institutions responding to the new social protection demands emerging because of the environmental, demographic and economic crisis? Who are the users who attend CPIAs? How is it possible to improve and structure, in different local contexts, an adult education system in order to offset the profound social inequalities?

2. Empirical research and methodological innovation

Inside the research work in progress that we intend to propose, the 'voices' of citizens clearly appear as shared evaluation result about 'Adult Education System' in Campania Region. It was fielded by 'Research Regional Centre' established by 'National Ministry of Education', and thanks to this institutional mandate, we can go beyond the contradiction among 'social research' and 'evaluative research' encouraging various actors participation in educational process. The research team conducted a series of biographical interviews to people enrolled in all of these CPIAs, assuming that social lifelong learning practices are diversified depending on contexts. The interview becomes strategic and the interpretative intent of Weber becomes essential when the recipients of a policy are far away from decision-makers, because of the apparent asymmetry of tools and capacities (Palumbo, 2015). Since a probabilistic detection pattern is not feasible, a sampling strategy based on «reasoned choice» (Agodi, 2009), has

been implemented among the users to identify the cases to be interviewed, starting from characteristics such as 'gender', 'age', 'geographical origin', to avoid as much as possible the risk of self-selection: 110 subjects were identified, of which 53 men and 57 women.

Through these narratives we came to understand the condition that led these people to choose to resume their studies in adulthood, and to elaborate their own employment strategies, highlighting the relationships between learning path, identity and aspirations. In this key, the biographical interviews, supported by the trace of a semi-structured survey, can be interpreted through the «event structure analysis» (Heise, 1991), to understand what biographical events, what causal relationships and what typical turning point has led the return of the actors in the educational pathways.

This conceptual and procedural device it is used by us to reconstruct the biographical paths that lead to a particular event – in the case of our research the achievement of the degree of study and the first contact with world of work – as expressive of certain regularities, of a specific socially and culturally productive 'structure' of that event. ESA is used here as strategy to analyse of the individual biographical narratives, to detect any regularities in the access of people with different family backgrounds in the different local contexts to the policies of adult education.

3. Interpreting adult learners' narratives

Interviews were conducted with the aim of rebuilding life stories, especially the events, that led users to make the school choice and the elaboration of one's own professional strategy. Contextualizing narratives, the events described have been placed in the precise historical a cultural moment of reference, favoring their best understanding and highlighting the conditioning links between individual events. Only in this way social action takes into account of its meaning and allows us to expose its various processes. All the experiences and individual strategies implemented by the subject have been reported to understand the intentions, beliefs and motivations behind their actions, giving it a sense and to highlight the social process that have been involved in the structuring of their paths of life. In our analysis the event considered is the current educational and professional condition and the interviews are conducted transforming them into narratives to be interpreted through ESA's methodological strategy. In particular, the analysis object was the set of interviews, where learners' path of life is described more or less in detail. Each case was examined to reconstruct the story through life events, chronologically succeeded, up to the interview, to determine the pathways that led to resume studies and to re-enter the labour world.

The reading of data has shown a series of events and experiences that, adding the structural starting point of the actors determined by the geographical context of origin, have allowed the construction of a bridge between biography and history, restating its sociological meaning even in the perspective of gender. The trajectories of life of women and men appear strongly different, starting from the social mechanisms that led to the choice of returning to study to the expectations for the rest of life. Overall, the men and the women show us a fairly wide, but not complete, picture of the social base of population attending the CPIAs, allowing the recognition of some of the first specific typologies.

The empirical evidences of our analysis show how individual stories of interviewed women and men appear to be firmly connected to the social and cultural structure: through this biographies gain meaning and are defined by this in a continuous interaction process. Rebuilding the contexts, we can understand the

overall meaning of such pathways. In a gender perspective, they tell us how the strong social reference in the countries of origin determines in the facts different levels of agency that are transformed into prearranged pathways and divergent strategies, creating a gap of skills and capacities, that the educational institutions now fail to fill.

Conclusions

Within a political agenda deeply oriented towards expressing a new perspective for welfare activities, in a context of economic uncertainty and demands for effective public spending, several factors include subsequent public policy attempts to respond to recurrent labour market difficulties, in particular the integration of young people and the unemployed. Given the need for a shared survey on basic social tools and the effective capacity function of adult education interventions, able to offer a structured framework, rooted in the reality of the trajectories of inclusion/exclusion of citizens-users, which do not neglect the recognition of the 'voices' of learners, we proposed the first empirical evidence of exploratory field survey on the adult population.

The choice to interpret the ‘life stories’ through the ‘Event Structure Analysis’ made it possible to highlight how different experiences, events, and breaks, told by interviewees with their own point of view, can be welded to the structural starting conditions, stratifying in individual biographies and recognizing some sample narratives. The first results have pointed out several elements of interest, related to the motivations that led the lifelong learning demand. The participation of people belonging to different backgrounds, some of which are far from typical social precariousness, shows how much the courses for foreigners can become significant even in the perspective of a social investment for an active citizenship (Gray, C. M. K. 2019; Agodi, De Luca Picione, 2016).

From interviews to learners, emerges that the orientation of public policies can be deeply remodelled. This especially in the sense of placing in the center of strategies a comprehensive action of lifelong learning closer to citizens, organized according to a model that is able to understand the specificity of the ‘demand’ of each territory and provide an ‘offer’ aimed to acquire additional agency skills. Despite the presence of some positive signals, it is clear that the adult education implementation process is further weakened by the actual capacity to improve the active citizenship levels of the participants of the courses, to promote a certain degree of individual emancipation and to improve the relationship of citizens with the public sphere.

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Neoliberalism, New Public Management: A Crisis of Legitimacy for Elementary School Leaders

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Keywords: *Neoliberalism, New Public Management, Primary school, Sociology of School Organization, Power*

Introduction

In the scholarly articles linking 'neo-liberalism' and 'new public governance' methods in education, the perspective -and the experience- of these new methods on the school teaching staff and school leaders need to be considered. The criticisms of neo-liberal theories should not only center on the tensions between the base-meaning teachers and school clients- versus the top echelon-meaning policy makers and managers of the civil bureaucracy, but these criticisms must also include the perspectives of the middle management, namely, the elementary school leaders

The French context offers insight on these tensions. The system remains highly centralized. How far will the decentralization go? Beyond the favorable discourse of these public management principles, the primary degree, in schools, remains largely shaped by a «bureaucary of conformity» as indicated by Francois Dubet (2016). And in this «bureaucracy which guarantees the conformity of professional practices and the consistency of the system», the teachers in his or her classroom enjoys considerable autonomy» (Maroy 2008) So what authority, would school leaders draw upon when these new management principles deligitimize them, while also advocating for local responsibility but refuses to question the authority of the entire educational bureaucracy?

At first, we will define neo-liberalism theories in the context of the French Primary school sector, and will then drawing upon the research of the organizational sociology, that at the heart of managing change and uncertainty lies in the issue of «power» (Crozier, Friedberg, 1977) The internal tensions of an organization in the midst of change and transformation; the tensions between adopting new norms of public management and the realities of holding to traditional approaches that continue to draw energy.

1. Neo-liberalism and elementary school governance: a change in framework towards new public management approaches

1.1. To the New Public Management

In an article, specifically, focused on the question of the relationship between neo-liberalism and accountability Hache (2007) posits «accountability» as the epitome of these new management approaches. These ideas of school governance emerge out of a debate initiated by Foucault at his course at *Collège de France* in 1978-1979 titled *The birth of the biopolitic* which attempted to draw a break between classical liberalism and this much younger neo-liberalism.

These concepts were already developed in many of Foucault's other published work. For example, Foucault's *Discipline and punish* (1975) exposed the idea of a micro-physical experience of power where individuals administer control and discipline on each other within a context of increased conformity.

The art of governance, if we follow Hache (2007), or Matucelli (2004) 's arguments, becomes not an imposition of brutal force by the State, but rather as Foucault points out that «the ability to influence others». Substituting here, the idea of being in charge to one of managing with a larger circle of actors or of managing in collective partnership.

Everyone is then 'invited'; to act, to get involved, to mobilize oneself according to their own skills and to choose a project management type where monitoring and control has given way to empowerment, in other words, to 'auto-control' (Boltanski, Chiapello, 1999, Hache, 2007).

1.2. Neo-liberalism and elementary school governance: a change in framework towards new public management approaches

More than elsewhere, the French school system has been built in a hyper centralized way, under state control, whether it is the Jacobin model of the French revolution, from the School of Empire and Restoration to the School of the Republic. However, this centralized system is not immune from global influences, and has been affected by the imposition of neo-liberal governing ideas stemming from international educational measures such as the PISA test results which are turning students across the world into one gigantic uniform class. The French educational sector has not been able to avoid this wave of political ideas about school governance and the shaping of teaching and learning as inspired by this 'new public management' principles (Hood 1991). These new interrelated frameworks of linking autonomy and collective work emerge in the nineties and offered a new educational vocabulary: the idea of the 'project'.

Yet these ideas, took hold in French elementary schools, without a change in the educational bureaucracy. They emerge in schools without administrative autonomy, without control of their own finances and without school leaders with clear power and status to manage innovation and the piloting of new practices.

The contemporary French education system looks more like an hybrid organization, balancing multiple configurations: on one hand professional bureaucratic, while on the other hand, it is somewhat mechanistic bureaucratic configuration (Mintzberg, 1982). Thus, the alleged freedom implied in the curriculums by the invitation to 'innovate and experiment' via school projects, appears as a paradoxical injunction to schoolteachers. The latter read it as such: «I am inviting you to explore collectively how to innovate, how develop projects, and experiment but all under the control of an inspector who supervises the school leader».

A subtle message that the school leader's creativity and innovation still needs to be controlled and cannot be fully trusted to be sound. This contradiction that creativity must be managed exposes a system unwilling to let go and embrace change. Systematic change would mean a true revision of all practices, of the hierarchies, segmentations, and turf battles of the traditional school system

1.3. The Question of legitimacy

The French system is particular. It holds an organization structure that is highly bureaucratic, centralized within patterns that reaffirms it as the sole legitimate source. (Weber, 1995). However, as Crozier and Friedberg (1977) have shown, the validity and efficiency of any system does not rely only on legitimate power but also on the actions and reactions of the actors in that system to the perceived power structure.

Ironically, such systems show that the more they add more rules and guidelines; the more these become contradictory. In a school system, these contradictions become resources for the educators. Therefore, in an educational

system, where the administrative hierarchy is far removed, and a school leader without true power, each teacher creates his or her own power turf. The things over which they-and only-they have control. The recent elementary evaluations revealed the refusal of certain teachers to distribute and share the evaluations or their results. In that case, elementary school leaders received an injunction to solve this 'problem' as quickly as possible, even to consider the possibility to administer these evaluations themselves to students. Thus, legitimacy appears as an obstacle course and evidence to be brought according to the actors, a collection of symbolic interactions. Power is not simply an 'individual attribute' it is a relationship of mutual exchanges -although not necessarily equal-but the school leader's power is built and co-constructed in an interactive manner. Since the elementary school leader interacts with three different networks of interested parties (professional teachers, (parents and students), the institutional authorities and municipal authorities. What power is conferred to the elementary school leaders to help him or her access legitimacy to push for new innovative projects or experiments?

2. Building a process of legitimacy for French elementary school leaders

2.1. Hierarchical status as an analyzer

For our study we rely on the results of three complementary surveys (Roaux, 2018) that are that are embedded in the theoretical framework of organizational sociology, namely strategic analysis (Crozier, Friedberg 1977):

- a national survey of 5847 teachers of which 2211 are Principals
- an integrated observation of an elementary school Principal (2 years)
- interviews with classroom teachers, principals, members of the supervision hierarchy all the way to ministerial Cabinet et political personnel.

We chose to focus our contributions uniquely on two categories of actors: classroom teachers and elementary school principals (who are truly the first level of power in change management in the French context of elementary schools) for the successful implementation of these neo-liberal principles.

Historically, the debate on the 'management' of elementary schools in France centers around the question of 'status' of elementary principals. Despite multiple attempts at legislative changes to elevate the status of elementary school principals in the hierarchy – or bureaucracy of the system – these principals are denied legitimacy, recognition, and the power to exercise their functions. This inability to give them 'status' and 'legitimate power' does reflect the symbolic power and relation of all teachers to the bottom of the chain of authority. To further examine this status indicator of elementary school principals, we asked a series of questions to better quantify and understand this 'refusal. Our first results show that there is a massive opposition-from classroom teachers- to elevating the status of an elementary school principal. Our survey report 69.6% of respondents opposed to change, whereas 62.8% of school principals are in favor. The elementary school principals who oppose to a status manage smaller establishments of 1-3 classes and do not seem to see the need for greater power, or some are nervous about the increased work expectations that more accountability would likely bring. We also conducted a thematic analysis of more than a thousand responses to this question of status and it reveals a true fracture between these two sets of actors.

Figure 1. *AFC presents the subjects discussed on the refusal or advocacy for a status change for elementary school principals by function/roles*

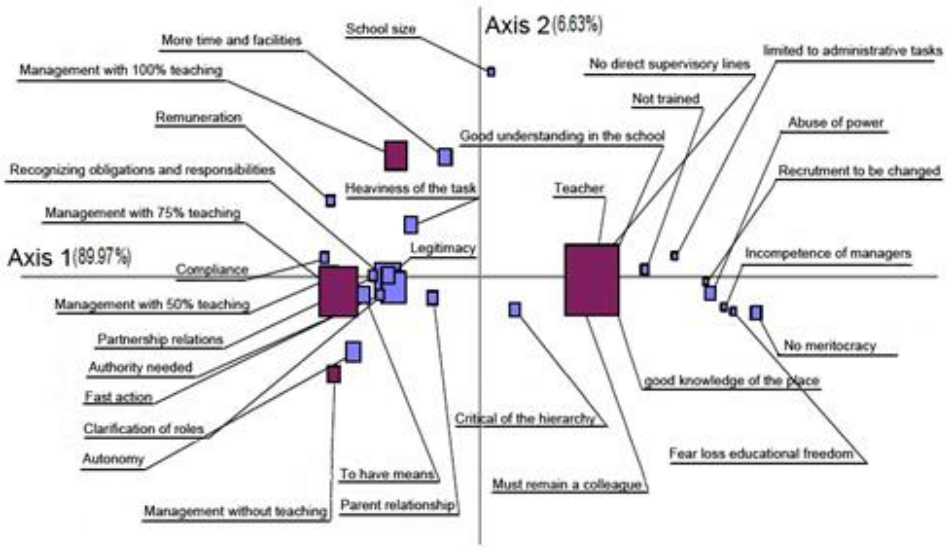

Figure 1 demonstrates the fracture between classroom educators and elementary school leaders on a horizontal axe (it captures 90% of the variance and is therefore the essential axe). The principals are focused on social recognition, legitimacy and the power to act, whereas teachers are far more concerned about collegiality, getting along, and the absence of hierarchy-even if it risk inviting incompetence. There are two conflicting tensions at work here, one is ideological and the other is symbolic. At the root of the tension is the suggestion that the classroom teacher is the sole protector of the 'real work of teaching' against a hierarchy considered dangerous and invasive.

2.2. Tensions in the framework

Whereas the new framework published in December 2014 clarified the responsibilties for pedagogy, administration and relations with different partners those are largely ignored-if not rejected- by some classroom teachers who dismiss it as a meaningless act.

> An elementary school principal is a colleague, one amidst many, he or she is not superior and has nothing to advise me on. Their role is solely administrative. Their legitimacy stops there. The principal in this context does not represent the hierarchy of power. He or she is simply an administrative person in charge of the building operations and not 'Moscow's listening ears. (Teacher)

For some teachers, a hierarchy within the elementary school would invite a system of surveillance and would create a negative environment on their daily professional lives and practices.

One can imagine that 'team work' does not exist and that the idea of collective project at school is an administrative formality totally divorced from true teaching and learning. This reality conforms with well-established literature on the subject (Tardif, Lessard, 1999). The classroom remains the sacred space and the school is just its surroundings.

> To give elementary school Principals a more empowered status would be to create a Little Chief within the school who will bring all the pressures of supervision while also trying to keep a welcoming environment? The absence of authority in the school allows us to get along because we are not under the control of one person and we are not worried that we are being judged by one person

The partitioning induced by a 'honeycomb' operation of the organization and the non-institutional recognition of the director by a statute, is finally protective for teachers. Beyond the risks that status would pose to 'collegiality', it is the individual teacher, in his choices and in 'his' class who feels threatened. This individual feel threatened by conflicts of interest, power relations and a team dynamic that would be unfavorable to him. The power in the classroom remains that of the teacher and of himself alone. The elementary school principal may be an expert in his classroom, teacher who maintains control of the quality of teaching. Classroom teachers, in this system, refuse to recognize the Principal as being the 'instructional leader.'

> We are always responsible without the power to act. For our teaching colleagues, they are afraid that we will judge them professionally on the national evaluations and to the hierarchy. And yet we need to use these measures to shape a 'school project So we have to figure it out (A principal)

3. Between a 'dirty job' and loss of status

3.1. The dirty job at school

As we have indicated, if the refusal to recognize elementary school leaders with an elevated status as 'instructional leaders' is massively present in the system. The paradox is that it is the same teachers who ask for the maintenance of the principal ones. A 'reduced legitimacy' is emerging, and this revolves around the 'dirty job' (Hughes, 1962) which is the rejected part of the pedagogical work: administration and maintaining discipline with students who appear 'difficult to manage' or having to work with parents who are considered too intrusive.

> The principal is there to be the gate between us and the exterior. It is to the Principal to manage. It is their responsibility to manage the school. We all have different roles. If a student disrupts a class; it is up to that principal to figure that problem student. If a parent has a complaint, the principal's job is to defend us (A teacher)

This designation of a 'dirty job' is also a result of the larger bureaucratic system which delegates the responsibility to the Principals but denies them the power and status to act. One principal observes:

> 'We are caught between a hierarchy which demands that we produce documents and teachers who refuse to fill these out. So, we are under constant pressure to negotiate, to entice. We are expected to manage it all without making waves, all […] the Parents, the kids, and unless we say that all is well, we will then be accused of not knowing how to manage our teams. It is tiring.'

3.2. Overcoming the obstacles or leaving

The position of elementary school principals in relations to their teaching staff and the families of the school is a paradox between a bureaucracy which claims to be powerless and the leadership of the school principal which depends on 'personal qualities' which invites reliance on charisma and possibly psychologically dangerous.

This is leading to a growing disaffection with the job, a growing lack of self confidence in the career and is making more difficult to recruit for the role. Therefore 40% of elementary school principals have indicated in our research that they are considering quitting their job. 69% point to a lack of power to act for change. This data reveals the fundamental ambiguity of asking these leaders

to be 'accountable' while maintaining them in a role without formal legitimate power.

Conclusion: an implicit alliance

Beyond the normativity of decisions dictated by circulars and decrees, the organization remains «loosely coupled» (Weick, 1976). Since the early 1990's, the educational bureaucracy has adopted new but contradictory management practices. What is emerging is an hybrid system in which 'the administrators continue to perpetuate bureaucratic traditions' It is true that in a system as centralized and hierarchical as the, National Education, the power to act and change will continue to reside on hierarchical power, one's status in that hierarchy. It is as if the 'new governance' is holding to the worst practices of the former management style under the alibi that innovation is happening at the 'school level.' We are stuck somewhere between a 'modernist' discourse celebrating 'autonomy' and central power unwilling to let go. And this tension is fueling the refusal of teachers to embrace change, to recognize elementary school leaders as 'instructional leaders.' It is fair to ask whether 'this new management' truly exist in French elementary schools or if it is a veil to mask the continuation of a system of power between those at the top and those at the bottom. What if, as Dubet (2013) proposes, «neo-liberalism» is actually a means to protect an unequal school system linked to the profound social inequalities of overall French society.

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Depoliticising educational choice: Homeschooling and virtual universities in Italy

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Keywords: *Neoliberalism, Depoliticisation, Educational choice, Homeschooling, Virtual universities*

Introduction

Innovative forms of public regulation emerged in heterogenous policy sectors since the last decade of the 20th century. Such reforms conveyed values and beliefs peculiar to the roll-out phase of neoliberalism (Peck, Tickell, 2002). This contributed to relevant worldwide transformations in the relationships among public and private actors. The affirmation of the political project of neoliberalism was made possible by governments pursuing processes of depoliticisation as political strategies (Jessop, 2014).

Such changes have been affecting the education field. School choice models are being introduced which are based on recurring concepts in the neoliberal paradigm such as merit, performance, efficiency. Families select among the best performers in the quasi-markets of education (Bartlett, Grand, 1993) through evidence-based assessments (Ozga et al., 2011) founded on performa-tive and commensurative indicators (Espeland, Sauder, 2007), e.g. the average performances of students enrolled in the evaluation tests, the educational offer, the extra-curricular activities offered by schools, etc. As shown by the case of the US educational systems, market-oriented solutions are increasingly legiti-mised: «private schools, charter schools, and voucher systems as a response to the collapse of quality public education» (Brown, 2006, 704).

1. The concept of depoliticisation

Depoliticisation was first described by Peter Burnham (2001). Further con-ceptualisations attempted to understand the features, paths and tools of these processes. Colin Hay proposed a model for seizing the sequentiality and duality of the processes of depoliticisation occurring among three different arenas (2007: 79): the public and governmental sphere (1), the public and non-govern-mental sphere (2), the private sphere (3).

Hence, depoliticisation broadly concerns the transfer of responsibility and the decreasing in political control over social phenomena and practices. In other words, it is about the «transfer of problems of public interest to the private sphere (3), that is, in the context of individual choices» (*ivi*). At the same time, social practices may engage in processes of *politicisation* by first entering the public debate (2) and then reaching political regulation (1).

However, two further aspects related to depoliticisation should be considered: its activation modalities and its types. It is in fact possible to distinguish between *proactive* and *reactive* forms of depoliticisation (d'Albergo, Moini, 2017). The formers are activated directly by public actors, while reactive forms are adopted as a response to pressures from non-political actors. A further analytical

distinction identifies three «types» of depoliticisation (Wood, Flinders, 2014): governmental (government action), societal (responsibility for collective problems) and discursive (values, visions and discourses).

In such processes, the State becomes less influent on different policy areas, while new '*depoliticised spaces*' are opened in which private companies, pressure groups and associations 'own' the debate on issues of collective interest and propose alternative solutions.

2. Aims and methods

The aim of this exploratory research is to investigate into the processes of societal depoliticisation of education happening in Italy in order to shed light on its implications for educational choice both in policy and practice sphere. Two educational options will be addressed: 'out of school' practices (OOSP), as a non-formal pre-primary/primary/secondary educational option; and Italian Virtual Universities (IVUs), as a formal higher lifelong educational option.

A mixed-methods strategy was used to grasp their nuances. With respect to the OOSP case study, we carried out a document analysis on international regulatory sources (HSLDA, 2016) and we explored the practice at a proximal level (Giancola, Viteritti, 2014) through 12 interviews with home-schooling parents and privileged witnesses (filmmakers, spokesman for associations). The IVUs case study was tackled through document analysis (materials by institutions and associations) and statistical analyses on data by the Italian Ministry of Education, University and Research (MIUR).

3. The depoliticisation of education in Italy: Out-of-school practices and virtual universities

All levels of Italian formal and non-formal education have been invested by the societal depoliticisation, which had significant implications for institutions, professionals, students and families alike. These processes often widened the range of educational choice. While they sometimes led to the commodification and marketisation of the educational field, they also triggered new bottom-up educational practices.

Law 168/1989 – which guaranteed autonomy to state and non-state universities with respect to teaching activities and scientific, organisational, financial and accounting matters – is a suitable analytical starting point for a brief reconstruction of the depoliticisation of education in Italy. The Decree 275/1999 is the Autonomy of Educational Institutions reform, which, among other things, led to the introduction of the Educational Offer Plan (POF) and to the 'managerialisation' of the Headteacher (Benadusi, Consoli, 2004). The following year, the legal equality between public and private school was established by Law 62/2000.

Two other acts relevant to the path of depoliticisation of educational choice in Italy should be mentioned. They concern *Italian virtual universities*, allowed through DM 03/17/2003, and *istruzione parentale/homeschooling*, as an example of OOSP, regulated by Law Decree 76 (04/15/2005). We are now going to focus on these two cases.

3.1. Out-of-school practices: the depoliticisation and politicisation of home-schooling in Italy

The first empirical case that we will explore concerns 'out of school practices' (OOSP) and, in particular, the Italian case of *istruzione*

parentale/homeschooling (IP). With OOSP, we mean an array of educational options for non-formal pre-primary/primary/secondary education taking place outside the school system and directly involving parents in teaching. Therefore, unschooling, homeschooling and *scuole parentali* (parental schools) – which are founded, organised and managed by parents' associations – can be understood as OOSP (Figure 1). Unschooling, IP and *scuole parentali* can be situated in a *continuum* going from a minimal structuring (unschooling) to a maximum structuring of educational paths (*scuole parentali*).

FIGURE. 1. *The prevailing forms of OOSP*

	Unschooling	Homeschooling	Scuole parentali
Times and spaces of learning	– Everywhere – Lack of a predetermined timetable	– Mainly at home – Mainly in the morning	– Outside the house – More or less determined times
Curriculum	– Completely unstructured – Happens through the students' curiosity, the parents' stimuli and what goes on at the time	– More or less structured (possibility to follow the ministerial guidelines) – More or less planned by the parents	– Pretty much structured (school programming + possibility to follow ministerial guidelines) – Planned by the parents' assembly
Teachers	– Parents, trusted people	– Parents, trusted people	– Parents, professional educators
Learning materials	– Everything (books, plants, tools, etc.) – Self-crafted materials (e.g. lapbooks)	– Everything (books, plants, tools, etc.) – Self-crafted materials (e.g. lapbooks) – School textbooks	– Everything (books, plants, tools, etc.) – Self-crafted materials (e.g. lapbooks) – School textbooks
Legal requirements	– Self-declaration of technical and economic capabilities	– Self-declaration of technical and economic capabilities	– Establishment of associations or other formal bodies

Source: Elaboration from the authors

Istruzione parentale in Italy

The distinction among these OOSP is effectively summarised in the MIUR expression *istruzione parentale*. This term can be found on its analyses on early school leaving in which IP is defined as a «valid motivation» for dropout (2017: 23). The National Register of Students 2017/2018 records 4169 home schoolers in Italy which are mostly found in the northern areas of the country (Di Motoli, 2019).

The interviews we carried out about OOSP revealed a complex pattern. Plurality emerged in motivations, ways of practicing, fluid formative paths shaped as assemblages of heterogeneous experiences. Convergence appeared on the other hand in claims by the parents regarding the refusal of school as a site of standardisation and homologation of teaching and learning which families reject as part of the «forme scolaire» (Vincent et al., 1994). They thus refuse to delegate education and assert their freedom to directly instruct their children. In the narratives proposed by the interviewees, IP thus appears as an instance of disintermediation and assumption of responsibility, whereas public education emerges as a 'spare option'. Parents propose an inversion in the relationship between education and students. The forms of education/learning are thus constantly redefined in a logic of hyper-personalisation.

A double movement: The depoliticisation and politicisation of IP

OOSP are allowed by Article 30 of the Italian Constitution. IP is recognised as one of the options for fulfilling compulsory education (Figure 2), as the Constitution establishes the right (and duty) for parents to educate their children. A depoliticised space is thereby *de facto* open to which parents can refer to

legitimise their OOSP. Further normative instruments regulate particular duties connected with IP: parents must produce a self-declaration of technical and economic capabilities to be presented to the headteacher (Legislative Decree 76/2005), and children have to take annual exams in order to comply with compulsory schooling (Ordinance 90/2001).

FIGURE. 2. *The main Italian legal regulations about IP*

Constitution, Art. 30	It is the duty and right of parents to maintain, instruct and educate their children, even if born out of wedlock. In cases of parents' incapacity, the law ensures that their duties are fulfilled.
Legislative Decree 15/04/2005, 76	Parents, or whoever takes their place, who intend to provide for their children privately or directly [...] must demonstrate that they have the technical or economic capacity and communicate it year by year to the competent authority, which provides the appropriate controls.
Ordinanza Ministeriale 21/05/2001, 90	Pupils who fulfil the obligation with this modality are allowed to sit the exams of qualifications or the exams of license in a state primary school or in an equal (*paritaria*) primary school, in the circle of territorial competence to the residence of the family.

Source: elaboration from the authors

By referring to such hierarchy of norms and to the Constitutional right, home-schooling families are able to inhabit and preserve depoliticised spaces. In other words, in the absence of a strict regulation by the governmental sphere, OOSP may develop and grow, sheltered under the private sphere of individual choices (Hay, 2007).

At the same time, politicisation processes might be observed in the field of OOSP. Although families carrying out IP operate in a legal framework, there is no specific law for IP resulting from a public/political debate. This aspect represents one of the challenges for the future of OOSP in Italy. In this sense, *L'Associazione Istruzione Familiare* (LAIF) aims to «promote dialogue with institutions to enhance the existing legislative paths that guarantee families a serene implementation of their own choices, of their commitment, in compliance with State and natural laws» (2019). Such a dialogue could lead to an effective process of depoliticisation of education with the transfer of greater responsibilities to families – or to the opposite, i.e. to the public actor choosing to promote greater State control on these experiences.

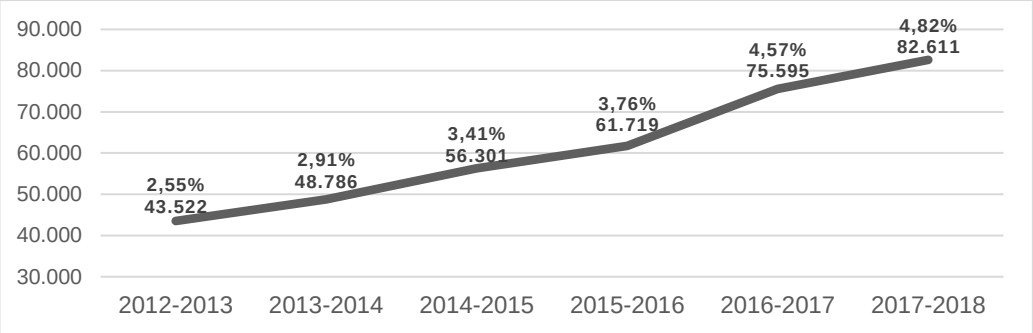
Exploring the case of OOSP thus means to untangle the emergence of a dual movement of depoliticisation/politicisation (Giovanelli, 2019): a reactive process of societal depoliticisation, enabling families to take responsibility for their children's education; and a process of politicisation of social practices promoting the transition of OOSP from the sphere of individual choices to the sphere of debate and public regulation.

3.2. Italian Virtual Universities: Between tinkering and marketisation

Italian *Università Telematiche* (IVUs) are non-state subjects operating as providers of formal higher education (HE). In order to do so, they must comply with the legal regulations imposed by the public sector and the criteria and procedures imposed by ANVUR, the Italian agency for evaluation.

Eleven of the 91 Italian universities are categorised by ANVUR as VUs. In the 2017-2018 academic year, IVUs gathered 4.82% of the 1,713,129 students enrolled in Italian universities (Figure 3). While enrolments in offline universities dropped from 1,665,511 in academic year 2012-2013 to 1,630,518 in 2017-2018, enrolments in IVUs almost doubled in the same period – from 43,522 to 82,611 students enrolled.

FIGURE. 3. *Time series of students enrolled to IVUs. The percentages indicate the enrolled in IVUs out of the enrolled in Italian universities*



Source: Elaboration on MIUR (2019)

The emergence of VUs in Italy

As stressed by the MIUR itself (2013), the hectic normative production and the overlapping of normative sources led to a fragmented and ambiguous regulation on IVUs. Law 168/1989 paved the way for the autonomy of non-state and state universities. Law 341/1990 marked the entrance of Virtual HE as a policy issue, as it allowed universities to set up «distance HE initiatives». However, IVUs acquired a well-defined legal status only when the MIUR converged with the trends outlined by the European Union, which at the beginning of the new millennium was simultaneously working both on eLearning and lifelong learning, along the lines of the Lisbon Strategy. By Decree 04/17/2003, the MIUR adopted criteria and procedures for VUs accreditation. They thus finally emerged as a policy issue, a nexus of educational and organisational practices as well as a formal education/lifelong learning option. All current Italian IVUs sprung from the private market between 2004 and 2006 (Table 1). More specific criteria and procedures have been introduced for VUs with Decrees 987/2016 and 06/2019.

TABLE. 1. *Italian* Università telematiche *(IVUs) and number of enrolled students (academic year 2017-2018)*

Università telematica (IVU)	*Students enrolled (2017-2018)*
UniPegaso	25.212
UniCusano	16.624
UniNettuno	11.877
e-Campus	11.437
UniMarconi	9.474
San Raffaele	4.313
UniTelma	2.475
UniFortunato	841
Italian University Line	248
UniDav	110
Uni Mercatorum	(missing)
TOTAL	82.611

Source: Elaboration on MIUR (2019)

IVUs: Tinkering and marketisation

IVUs have implications both as educational phenomena and as socio-political processes. Hybrid learning arrangements are suggested by these 'online' kind of universities in which materialities, spatialities and temporalities are woven together and performed 'otherwise' – beyond the *forme scolaire* (Vincent et al., 1994). They are thus attractive for users looking for a tailor-made

educational offer, such as workers, parents, travellers, disable people, etc. IVUs can be thus examined as an entry point for sociomaterial, sociospatial and sociotemporal practices (Fenwick and Edwards, 2012) through which students tinker with the learning arrangements within which they are entangled.

On the institutional level, a displacement of the responsibility for HE from the public to the private sector can be witnessed with respect to IVUs. As shown, this happened through the state convergence with European dynamics and the construction of a normative apparatus which regulates IVUs. A proactively depoliticised space was thus opened by the public actor – the space of virtual higher education/lifelong learning. This space has soon been populated by IVUs institutions operating towards the marketisation of the Italian virtual higher education arena.

4. Final remarks and ways ahead

In this research an attempt was made to explore the processes of societal depoliticisation of education in Italy in order to observe how they interweave with educational choice. Two different educational options were analysed: OOSP (non-formal pre-primary/primary/secondary educational option), and IVUs (formal higher lifelong educational option). In both cases, 'depoliticised spaces' were observed in which responsibility is being transferred from institutions to new actors (individuals and families) which thereby become education providers. In the case of OOSP, we analysed a double movement of depoliticisation of education and politicisation of practices which are now entering the public debate. In the case of IVUs, the dislocation of the responsibility for HE from the public to the private sector is leading to the marketisation of education and to the emergence of new hybrid learning practices.

The effects of these depoliticisation processes are detectable on diverse fields. In terms of formal and non-formal educational offer, such processes are leading to a pluralisation of the educational options available to the students. In terms of subjective experience, these processes expand the students' possibility to craft and tinker with their own formative path – these educational options can in fact be assembled in heterogeneous ways as they leave room for plural outcomes and exit strategies. However, public power does not disappear in these processes, maintaining a key role in drawing up their possibilities and boundaries.

The issue of societal depoliticisation of education opens up for further reflection and challenges. These may concern, for example, the vulnerabilities that these processes might entail, such as the marketisation of education: what could happen to the idea of education as a common good if the State no longer secure education as its own responsibility? Another important matter concerns equity: who can really inhabit the depoliticised spaces of these educational options? Such issues and others can be addressed by further studies engaging this field.

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University Admission and Selection Processes in the Conditions of the Hypermodernity: the case of French Universities

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Keywords: *University admissions and selection, State and education, France, Hypermodernity, Institutional analysis.*

Introduction

French universities are widely known for their «non-selective» student enrolment (Deer, 2005), the only official admission requirement being to have their *baccalauréat,* the exam which completes high school education. Over the years, the French government has sought to increase the number of *baccalauréat* degree holders. Between 2009 and 2017, it rose again, from 65% to almost 80% (Ministère de l'Enseignement supérieur, de la recherche et de l'innovation, 2018).

The other well-known characteristic of the French higher education system is its 'duality': there is an 'open university sector' open to all holders of the *baccalauréat*, and a 'closed sector' for which admission is selective (Eicher, 1997). There is more to this divide: it serves as a symbolical representation and reference framework opposing democratisation and elitism, or equity and excellence against which all 'higher education institutions' (HEI)[1] are perceived and measured, perceive and measure themselves on the educational market. This non-selective feature of French universities, long taken for granted and almost non-negotiable since the 1968 student demonstrations and reinforced by the tragic end of the 1986 *Selection and Reform Project*[2], has once more been under review. Following a range of reforms, in February 2018, a new law on student orientation and success passed, making pre-registration procedures compulsory (legal), based on an online platform *ParcoursSup,* introducing systematic admission control, through algorithmic processing.

High school students list their choices on an online platform. The Ministry, the national representatives of the disciplines, and the universities also list their criteria according to the number of places available and specific prerequisites: all the non-selective degrees have 'expectations', which are supposed to serve as warnings to applicants; in some cases, when demand exceeds supply, capacity limits are set, leading to extra selection criteria such as the place of residence.

What forms does selection take on, and what is new about them? (2)

Why has the issue of university admission (a cultural taboo for many) re-emerged into explicit policies? And what for? Does it mean that the social functions of French universities are also changing? (3)

[1] In English language, 'Higher education institution' is an equivalent of university as an organization. In France, traditionally, the 'Higher education institution' refers more to a system, closed to the idea of a public sector. But, considering the changes, 'Higher education institution' (HEI) will be used in its English meaning, and 'institution' alone, in the perspective of a sociology of institution, i.e. a formal social structure that governs a field of action.

[2] During the student demonstrations against the Reform in Paris, one student died as a result of the confrontation with police. The Minister of Higher Education stepped down and the Prime Minister halted the Reform.

These are the three questions, which have guided this paper and the investigation (1).

1. Problematization and method

This paper aims at contributing to the French current theoretical debate triggered by the new admission system. To this end, only the institutional factors will be highlighted: the internal operational functioning of the 'institution' which must be understood as an autonomous social system, including establishments, the higher education market and the State.

To grasp the institutional aspects of these new admission procedures:

- A public policy analysis of the recent reforms, particularly the *Plan for Success in Licence* (Degree) from 2007 to 2012, officially drawn to fight failure among undergraduate students. It was a key step in transforming the relationship to first-year applicants.
- A case study: The Toulouse (a French regional metropolis) University of Humanities, Languages and Social Sciences hosting 24.000 students annually (interviews, participant observation, analysis of minutes of meetings, strategic documents, and statistical data).
- An analysis of the university archives since 1967 (reports and minutes of university councils) for information about admission, ranking, and management of undergraduate students.

2. Regulation of first-year applicants in French Universities

2.1. An international perspective

Even if it is common to stress the divide 'selective/non-selective' within the French university system, it becomes irrelevant in terms of analysis. In the Seventies, Patterson qualified the French university system as an «open-door» institution, but said that «selective and Open-door» HE systems were not so different fundamentally, considering the twofold importance of the principle of equal and/or fair access with the process of selection and the assessment of academic ability (Patterson, 1976). In selective systems (USA), «entry is limited by pre-enrollment selection on the basis of academic ability […] socioeconomic status is purportedly eliminated as a barrier by free higher education, scholarships and subsidies [...]. In the open-door system (France), according to Paterson (1976: 175) entry «is guaranteed to all who want it with, at most, nominal pre-enrollment selection [the high school diploma *baccalaureat*]». In the latter, «sorting becomes a major internal consideration and selection of students is made after entry, often covertly. The two major selection-after-entry mechanisms are failing out and 'cooling out' students» (Patterson, 1976, 175).

In universities where there is no admission policy, because formal regulation of applicants is partially outsourced, studies have shown implicit or hidden forms of regulation. American sociologists have argued since the 1960s that community colleges (which offer a two-year higher education degree) have a specific place as open-door institutions within the American higher education system (Marginson, 2018). They help regulate demand for higher education in that they 'cool' the desire to pursue higher education (Beach, 2012; Clark, 1960).

Similarly, in France, even though the sociological research of the 60s did not explicitly uncover such 'cooling out' strategy, it was actually implicitly the case under the disguise of some unexpected consequences of mass university. At the end of the Eighties, the prevailing paradigm of French universities was that

of the 'floating or 'indeterminate and anomic' university (students were on their own, without guidance, and their motivations and goals were vague or unknown). Yet this indeterminate nature can also be understood to serve the need to regulate admission for institutional drivers and professionals who cannot, either because of lack of resources or out of professional conviction, meet sharply rising student demand. Indeed, the massive number of first-year students generate organizational complexity and student confusion, which may contribute to their failure. French government policies from the 2000s to combat student failure at university and to provide incoming students with support and preparatory courses, were actually more ambivalent than at first sight: universities without formal admission policies support and undermine newcomers.

In France or elsewhere, there is a converging significant part played by the level of universities as organizations in the regulation of student's practices. Two further determining factors should be considered: the situation of each HEI in the system of HE providers (mostly nationally defined, but for a few, such as Cambridge or Harvard, internationally), and their relation to the State. The latter greatly varies depending on the nature of the State (strong or weak) and on its role either centralized and interfering in the social sphere or allowing the competition-oriented market. It means, in all cases, that the regulation of applicants more or less depends on external regulations and not only on the organizational capacity of each HEI.

2.2. French universities: permanence and change

The analysis of the university archives revealed three types of regulation: allocation, control and sanction (or assessment).

The allocation-regulation lists the actions and tools to meet students' needs and improve orientation and support as well as information about degree programs, services and examination, diversification and professionalization of programs.

The sanction-regulation assesses students' academic level as well as their ability to enter the labor market, which guarantees the quality of their diplomas, and consequently, the quality and reputation of the professionals and of the institution awarding the diploma.

The control-regulation manages the number of applicants to be selected. Even this function of limiting a large demand is generally not explicitly admitted by the government or university staff, trends to restrict admissions tend to increase during periods of increasing demand: the number of *bacheliers* applying increased in 1967-68, 1987-1995, and 2011-2017. Conversely, control tends to decrease in times of decreasing demand (1996-2005).

In the Sixties, the propaedeutic year, which was officially supposed to prepare students for higher education served as a second barrier after the *baccalauréat*. In 1966, a reform repealed the preparatory year. However, one of the suggestions made to the Minister when repealing that barrier was to set up another one:

> It would be disastrous for thousands of young people to come to university only to go astray on a path that they will abandon without any academic qualification, sometimes after several years (regional news, 6 October 1967, University of Toulouse archives).

The May 1968 student protests partly originated from this threat of selective admission for Humanities (Prost, 1989). In the Eighties, there was some support for selective admission, but it did not carry the day. If implicit, the stable dropout rates (those who dropped out before taking exams), which are included in failure rates, underscore the importance of 'natural' selection, indirect resulting from

students' choices, higher education and labor markets, and the very structure of mass university.

Not all policies have similar targets, some are oriented toward openness (University Plan 2000, 2001-2002 LMD reform), while others mean to close (the dominant anomy of the Sixties and the Seventies, the 1997 reform, the Plan for Success in *Licence* from 2007 to 2012, pre-registration procedures introduced in 2018). But the tools designed for better responding to student diversity and focusing on the needs of potentially weak students, generated 'warming up' (Belanger, 1986) as well as 'cooling out' effects. Creating a national computer application to guarantee a place for all the candidates promotes the development of a selection system (with capacity thresholds for each diploma and academic criteria to rank applicants). The diversification and professionalization of programs are another illustration of the ambiguities of the 'warming up' policies, generating at the same time, segmentation and hierarchy within the university.

Two main types of changes stand out in the latest period. The Allocation regulation turned out to be negative, resulting in what can be summed up as the concept of «propeadeutization» (Bodin, Orange, 2013). Selection before entry became explicit widely: some universities changed their legal status, all universities developed selective programs, some degree programs introduced drawing lots to avoid ranking candidates, others set up quotas or shortened their registration periods, most universities took advantage of the national pre-registration tools introduced after 2009.

3. Economic and political parameters of university admission and selection

3.1. Economy

Economically speaking, there is an apparent paradox in the recent trends: students are the primary resource for higher education institutions, not because they pay for the educational service they get, but because they represent a monetary value in a state funding system. Thus, fluctuations in enrolment either increase or decrease universities' funding while undergraduates are a financial boon: 60% of students throughout France are undergraduates and first-years alone represent 21% of the Toulouse university student population. How can the paradox be solved?

First, the student demand is, up to now, stable and partly 'artificially' maintained. This situation of a 'reserve army' reduces the importance of the student demand as such – students are considered as an input (resource) in a competitive race – and encourages the institutional focus on the market of providers in a relatively self-centered competition.

Secondly, the supply market has expanded, diversified, and stratified. In Weberian terms, French universities now form a *social class* of institutions that share the same economic situation, and claim to be a status group, deserving special consideration and deference in the society. 'Mass university' which conveys the idea of a mass influx of students is increasingly seen as negative, a synonym of a 'downgraded' or 'broom wagon' university, sweeping up all those not wanted elsewhere. In a context of a 'market of quality', universities are worrying about their competitors, and the applicant profile determines the quality of the provider (Felouzis, Perroton, 2007). It is a market of inherited quality rather than conquered. As a consequence, universities are developing proactive policies towards incoming students.

3.2. The State

Politically speaking, there is also a paradox: because they are state-funded and run, universities are closely linked to the Social-Democratic values of the French society. In Weberian terms, this integration ensures legitimacy, which is a different form of relationship from 'reputation' in a quality market.

Yet, the contemporary French state corresponds to a model of a 'market-making state' (King, Le Gales, 2017): it withdraws from production processes and creates the conditions for developing internal markets in the public sector through increased budgetary control, incentives to find resources, and result assessment. The country's needs for higher education qualifications are translated into objectives, programmes and indicators, such as the percentage of undergraduates completing their degree within three years (the standard timeframe), the percentage of those graduating in their first-year university, the percentage of university professors teaching first-year classes; the percentage of first-year dropouts, the percentage of graduates finding a job.

These indicators have to be 'efficient', or accountable, which actually means:

> to rationalise the use of buildings and classrooms, for the university to find its own funding, to reduce the number of degree programs with few students enrolled, and to reduce the time it takes to complete the degree' (French government, 2009: 23).

If legitimacy is still important – under the conditions of a market-state, reputation may be more important – student success is now coupled with 'equality of opportunity' whereas 'equality of place' has completely disappeared (Dubet, 2011). Through a kind of domino effect, in turn, this demand for accountability is passed on their students by public service providers. In doing so, universities are definitely excluding some of their actual users, whose expectations are different, suggesting that the university is no longer a social institution with general missions of socialization (Musselin, 2014) but a strictly academic establishment, only accountable once the enrolled student accepts the minimum rules of the academic game – in this case, academic prerequisites.

The paper underscores the move from a mass HE economy to a competitive one, for which the competition between providers is more important than the capacity to answer to a social demand. These economic changes are largely fueled by the reconfiguration from a social-democrat State to a market-making one and a result-based culture. Finally, these results show how the universities-clientele relationship is determined by sectoral factors, more than by the proper characteristics of this relationship or by the needs of the clientele.

Max Weber wrote that modern societies are engaged in irresistible rationalization, as the organization of all sectors is result-oriented. This rationalization tends to produce refractive phenomena, according to which any organization responding to specific social needs keeps growing and complexifying to end up with an indirect representation of the demand. It leads to reversal phenomena between ends and means – organizations having their own, if not independent, goals, distant from those for which they were created. Niklas Luhmann (1995) extended the Weberian theory. He did this to the point of pushing the hypothesis of «hypermodernity», and introducing the concepts of «self-referential subsystems», running by «autopoiesis».

Jean-Marie Vincent (2009) adds a crucial idea in confronting Max Weber's rationalization theory to Karl Marx's theory of value, thus highlighting that current rationalisation processes are closer to marketization than to bureaucratisation. François Dubet formulated the idea of the end of the «meta-institutions» (Touraine, 2013). The *travail sur autrui* (socialization of the subject) has been replaced by the confusing «culture of demand» emerged in the end of the

twentieth century (Dubet, 2010). Universities have been turned into 'organizations'. This new status does not refer firstly to their governing capacity or their corporate or class identity but that they have become the «iron cages» of valuation rationality, with its positive and negative face for their staff and clientele.

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Knowledge driven shared sustainable strategies for the Mediterranean Sea, a case of resilience in a collective educational process

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Keywords: *Mediterranean Sea, Resilience, Sustainability, Educational process, Environment*

Introduction

The present paper analyses the implementation process and some aspects related to the resilience of the marine system, of the EU project BLUEMED (2016-2020), a *Coordination and Support Action* (CSA), aimed to involve the relevant actors and stakeholders of the Mediterranean Sea in the definition of knowledge driven shared sustainable strategies, through a collective democratic educational process. The Mediterranean Sea has been a crucial crossroad for the history, economy and culture of Europe, Middle East and North African countries. The concept of sustainable marine and maritime economic development has only recently been adopted by the European Union and is finally aimed at improving social well-being through an educational process that involves all the actors of the territory and the stakeholders in the broad sense. This implies a drastic change from how operators from marine and maritime sectors have traditionally addressed management of marine resources, towards a synergistic, non-conflicting and sustainable use of the sea (Stobberup et al., 2017).

The Mediterranean region, given its long history of marine resources exploitation and increasing human pressure, is an ideal natural laboratory for testing the implementation and feasibility of this new educational process and, at the same time, to understand the resilience of the maritime system in this process (European Commission Staff Working Document, 2017).

The paper intends to analyze and assess the steps and some implementation aspects of the collective educational process necessary to reach the goals of the BLUEMED project that includes also joint analysis and strategic planning. In particular it intends to test the capacity for resilience at various levels (territorial, individual, of community) that the whole system has retained in terms of its potentiality. If we consider the current economic crisis and the evolving political, social and environmental conditions in the Mediterranean Region, it becomes clear that only an interactive educational process, able to involve all the multidisciplinary actors from different Countries can build an ideal environment for reconciling tensions and balancing economic growth, social implications and environmental conservation.

The main aim is to identify strengths and weaknesses in the educational process at the base of the BLUEMED project, in order to verify if it can be able, taking advantage from the resilience of the whole maritime system, to create a participative and educational process, where the top-down and bottom-up approach can be connected, so stimulating a dialogue among stakeholders at different level and of different European Regions.

1. Structure of the project and methodology

The 11 main organizations participating in the BLUEMED *Coordination and Support Action* (CSA), belong to 9 different Countries and are aimed to involve the relevant actors and stakeholders of the Mediterranean Sea in the definition of knowledge driven shared sustainable strategies, through a collective democratic educational process. The 11 organizations participating in the BLUEMED project are:

- Consiglio Nazionale delle Ricerche (CNR), Italy;
- Research Promotion Foundation (RPF), Cyprus;
- Ministerio de Eco nomia Y Competitividad (MINECO), Spain;
- InstitutoEspañol de Oceanografía (IEO), Spain;
- Centre National de la Recherche Scientifique (CNRS), France;
- Institut Francais de recherché pour l'exploitationde la mer (IFREMER), France;
- Hellenic Centre for Marine Research (HCMR), Greece;
- InstitutZa Oceanogra fijui Ribarstvo (IZOR), Croatia;
- Malta Council for Science & Technology (MCST), Malta;
- Direção-Geral de Política do Mar (DGPM), Portugal.

The methodology, based on interviews, panels and workshop with main maritime actors and stakeholders, intends to analyse and assess the steps and the first results of the collective educational process necessary to reach the goals of the BLUEMED project that includes also joint analysis and strategic planning. It starts from a fixed point: testing the capacity for resilience at various levels (territorial, individual, of community) that the whole system has retained in terms of its potentiality, from which to start towards new sustainable development goals. In the Mediterranean Region, characterized by an economic crisis with evolving political, social and environmental conditions, only an interactive educational process, able to involve all the multidisciplinary actors from different countries can have the capacity to build an ideal environment for reconciling tensions and balancing economic growth, social implications and environmental conservation (EU, 2016), (Cvitanovic, et al., 2015).

2. The participative process and the role of the Platforms

To support the participative process, both a top-down and a bottom-up approaches have been used to stimulate a dialogue among stakeholders, in particular the BLUEMED project established four thematic working groups, so called BLUEMED platforms, both at national ('Mirror Platforms') and at Mediterranean level, they are:

- Knowledge of Mediterranean Sea dynamics and ecosystems
- Economic sectors of Blue Growth economy
- Enabling technologies for Blue Growth
- Science to Policy for Blue Growth (transversal platform)

Platforms are conceived as 'virtual environments' where representatives from relevant stakeholders at national level can interact to convey the message of national communities, discuss and agree on gaps, needs, barriers and priorities related to the actions identified in the BLUEMED Strategic Agenda (BLUEMED*,* 2018).

The Spain CSA is still in progress , but the main outcome expected from the work of the platforms is to identify strengths and weaknesses in the educational process at the base of the BLUEMED project, in order to verify if it could be able, taking advantage from the resilience of the whole maritime system, to

create a participative and educational process, which connecting the top-down and bottom-up approach, can stimulate and increase the interactions among different stakeholders.

The platforms also act as dynamic observatories for monitoring the system in the long term. At the end the platforms are expected to become a transnational network that will continuously and operationally put into effect, monitor, prioritize and update the actions and policies in the Mediterranean (Cariola et al., 2018).

In addition, a collaboration between the Platforms and the National Technology Cluster Blue Italian Growth (CTN-BIG), established according to the Ministry of Education, University and Research 2015-2020 National Research Program, was activated and will be pursued. This effort will also serve as a guideline to consolidate the BLUEMED Strategic Agenda actions and to design an initial roadmap for their implementation.

3. Platforms activities at Italian level: main outputs

At Italian level, with the contribution and the active engagement of the Italian marine scientific community and of relevant marine and maritime stakeholders, several approaches, activities and tools 'resilience-based' were adopted inside the 4 Mirror Platform in order to manage these interactions.

Until now, (the project will end in 2020) the main tools and activities carried out have been:

1. National BLUEMED events: a first National event 'BLUEMED meets Italian Stakeholders' was held in Rome, at CNR Headquarters, on June 2017 where preliminary ideas and suggestions were collected. This participatory event gathered more than 100 people and offered the opportunity to launch the national BLUEMED platforms as mirror mechanisms of the Mediterranean ones and initiate the process of identifying problems and areas of intervention.
2. The survey 'Share your view on the Research and Innovation agenda for the Med': a dedicated online survey was launched to collect suggestions to update the BLUEMED agenda by examining each goal and action in detail, and proposing additional inputs and/or revisions, identifying barriers and bottlenecks, while stressing the specificity of the Mediterranean basin in relation to a proposal of actions;
3. Consultation with experts; leading experts in different marine sectors were invited to contribute to this process by : reviewing the state of the art of 'blue' sectors; analyzing related cross-cutting issues and constraints; defining trajectories towards Blue Growth objectives able to exploited the resilience of the system.
4. An inter-ministerial working group on Blue Growth; to coordinate and strengthen the output of the previous steps, open and public discussions through regular meetings are organized with decision makers, including representatives from relevant ministries, in order to better align and strengthen the Bluemed goals with national programs and strategies on Mediterranean (BLUEMED, 2018).

Further improvements will be integrated by creating the necessary links with the National Smart Specialization Strategy (S3) and the Italian Bioeconomy Strategy (BIT). The implementation methods of the National and Regional S3 – definition and execution of strategic plans where national and regional interests and resources can converge – also ensure the involvement of Regions and the variety of productive knowledge expressed by the territories through multi-

regional plans approved by the Conference of Regions and by the Autonomous Provinces.

Furthermore, among the platforms activities, for each of the main marine and maritime socio-economic drivers (food, transport, tourism, chemicals and materials, energy, security), the most relevant thematic objectives for Blue growth in the Mediterranean have been identified. Their relevance has been defined by looking at the potential impact in terms of societal, economic and environmental benefits.

Conclusion

We know that resilience is the ability of a system to adapt to changes and to difficulties. The Mediterranean basin is a problematic area where climatic changes, migration flows and other social and economic factors are strongly impacting its development. The BLUEMED activities are still in progress, but the keystone of all the activities mentioned is to make understand to all the actors involved that effective steps towards a 'blue' economy (that responds to changes taking place in the Mediterranean area) can only be achieved by transcending the mere identification of research and innovation challenges and priorities for specific sectors, which inevitably reflect a partial, sectorial view (Colloca et al*.,* 2017).

This means that the main effort must be directed towards an integrated view of how different activities, often conflicting, might coexist and even develop synergies in a continuously changing environment.

The first results of the analysis and activities carried on within the project , in particular those of the Platforms on the main marine and maritime socio-economic drivers (food, transport, tourism, chemicals and materials, energy, security), have allowed to identify, for each sector, the main criticalities/bottlenecks that could prevent, or have until now precluded, the achievement of the main *objectives at national and trans-national levels have been identified*. The specific identified factors on which the resilience of the maritime system has still to concentrate its efforts are:

- the different perception of priorities within the different stakeholders (scientists, industries, public authorities, civil society);
- the present levels of interactions among the different stakeholders;
- the present level of competition among countries and the existing conflicts for related activities;
- the knowledge gaps (related to each aspect: natural sciences, engineering/technology, economy);
- the skill gap (competences to be still developed fit for blue jobs).

If, stimulating the resilience of the maritime system, the efforts of all the actors involved will be able to overcome these criticalities, it could be possible to have a development more and more sustainable of the Mediterranean Sea and of its immense resources (Berkes, Folke, 1994).

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Re-enchantment and Care Policies in the Digital Society. A Critical Reading of Resilience Based on Bernard Stiegler's Philosophy

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Introduction

This reflection is based on a work started with the *Tor Vergata* and *Roma Tre Universities* as part of my Ph.D. in Philosophy on *The philosophy of technology*. This research aims to inquire into the peculiarities of the relationship between the techno-environment, culture and the digital revolution, starting from the thought of the French philosopher and sociologist Jacques Ellul (1964), who from the mid-1950s began to develop a vision illustrated in his trilogy. It does so in an extremely critical way, in parallel with and differently from some other thinkers who have had more luck in writing on the subject (like Heidegger). Jacques Ellul, in fact, paves the way for a long and fortunate list of authors, who in various ways, face the question of technique and of technology in society from the 20th century to the present day. One of these authors is Bernard Stiegler, one of the most original contemporary thinkers in France.

How can Stiegler's philosophy help to critically investigate some interesting aspects of the concept of resilience? Most academics agree on the definition of resilience as a strength, an attitude that, in part, everyone possesses and that can be influenced by a social, cultural and relational environment. In education, the term 'resilience' defines the ability to create experience, knowledge and culture by transforming negative episodes into new learning.

From Garista's and Malaguti's works (2018; 2005), which addressed the subject from an educational point of view, it emerges that education in resilience can become a tool to resist radicalization and social discrimination, to promote intercultural dialogue, active citizenship, legality and environmental and sustainable development policies.

Stiegler elaborates a thought across these three following dimensions: transcendental philosophy (Kant, Husserl, the existential analytics of Heidegger), the Derridean path and the almost-causality of Deleuze. Stiegler elaborates a definition of 'technique' in terms of inorganic matter organized by man, a continuation of life through other means not present in life itself. Today the technique is incorporated into behavior, but as noted by the Italian philosopher Montani (2017; 2015), what constitutes a relevant and salient element for the contemporary is that, in the present technological revolution, we move from technically assisted behavior to technically dependent behavior.

Stiegler in *Taking Care. Youth and generations* (2014) deals with the subjects of instruction, education, the role and transmission of knowledge and lays the foundations for an authentic social therapy considering a theoretical-political transformation of the contemporary horizon. For this purpose, he uses Foucaultian analysis of bio-power integrated with the concept of psycho-power. His gaze, open to a collective intelligence (Levy, 1996), aims to build social attention based on the category of taking care of oneself and others. This

approach appears to be in continuity with what can be thought of in terms of ethical competence (Garista, 2018), an element that permeates the work of care which reiterates its centrality in education to resilience.

1. Technique and resilience

What is the link between technique and resilience? The answer is in the reformulation of the relationship between technique and the human as interpreted by Stiegler, that is, in terms of equivalence between anthropogenesis and technogenesis, in the wake of the anthropologist Leroi-Gourhan's theories and research (Leroi-Gourhan, 1964). Why use Stiegler's reflection? Resilience is also knowledge and the French philosopher argues on how important it is to train teachers on a genealogical thought of knowledge to make people understand how knowledge becomes technological in a modern (industrial) sense and how knowledge can form the central function of the contemporary production and consumption system. Only then, probably, it becomes possible to positively criticise this function and this system.

In the reasoning below, there are two tensions, two analytical and exploratory thrusts, which feed each other through suggestions that derive, on one hand, from Stiegler's reflection on schools, culture and education today and, on the other hand, from the points of contact and differences between the construct of the theory of resilience and *pars construens* of Stiegler's philosophy of education. In formulating this second aspect, I have accepted the invitation to understand that resilience as a theory is open to interdisciplinary contributions.

At the base of the question, concerning what it means to be resilient in a neoliberal system, it is appropriate to ask a more radical question about what it means to speak about resilience in educational contexts (Cyrulink, Malaguti, 2005). I analyse two points from which we can trigger suggestions between the theory of resilience and some concepts and reflections elaborated by Stiegler. They can be summarised as these two assumptions: 1) the humus of resilience is the narratives; 2) resilience is simultaneously retrospective, adaptive and anticipatory. «Resilience is a construct that not only intersects that of salutogenesis, but also intersects the construct of positively- and narratively-oriented self-development» (Garista, 2018).

Thus, the humus of resilience is narratives. To affirm this sentens means to be in line with the centrality that, in my opinion, Stiegler confers on the concept of grammatisation of relations, that is, one of the main ways in which the 'dividend' takes place: today individuals grammatise their behavior interacting in real time with computational systems (this is the case of the social networking phenomenon). «Resilience works backwards in the past, but in the preventive field, the work on resilience is often a work on the future imagination» (Garista, 2018: 29). Which is to say that it is simultaneously retrospective, adaptive and anticipatory. Focusing on the anticipatory aspect, Stiegler notes that our imagination is continually anticipated by the automated event. To clarify this point, a possible proposal for the integration or rethinking of the resilience paradigm comes from the concept of trans-individuation that Stiegler takes from Gilbert Simondon's theories (Simondon, 2012).

2. Knowledge and trans-individuation

Knowledge is the capacity for trans-individuation (that is, to be able to produce shareable meanings) and forms the identification of a collective subjectivity, but it also transforms the social milieu in which singularities grow. The individual is only the partial and provisional result of a series of operations of individuation that take place in the collective dimension and through it. So, the individual does not exist without an environment. It must be said that, in Stiegler's opinion, the dominant form of individuation, today, is the technological one: it is not only man who identifies himself through technologies but also the technologies which identify themselves independently from man. The changing conditions of the individual's belonging to the environment can trigger a new process of individuation (Stiegler, 2012), What is the link to the discourse on resilience? Even the construct of resilience can be applied to the individual, to the path of the individual, but the mentoring factor, well-focused on in Garista's text (2018), opens up to an 'us'.

Another interesting point of contact is that Stiegler's starting point is symptomatic and the same symptomatological tension animates the first phase of the resilience theory as was configured by Tisseron (2017), We live in a condition of symbolic misery and domestication of the human that both corrodes the social milieu and creates regressive dis-individuation, preventing trans-individuation.

All these considerations combine to provide suggestions to try to answer what it means to be resilient in a neoliberal system. Does it make sense to say that we should all be resilient, so that maybe we could have a personal responsibility to control every cause or factor in our lives? A clear risk is to develop an inability to react to a trauma (even a simple change or an epochal revolution like the digital one today) without producing and inventing new solutions. My proposal is to try to shift the focus from the individual to a collective change, taking inspiration from an event like the digital revolution that concerns everyone individually, and collectively, and use this scenario as a laboratory for reflection.

3. Between Care and Re-enchantment

Stiegler recovers and re-elaborates, in his philosophy of education, the concept of care and re-enchantment. Already Foucault had noticed how studying educational matters helps to rethink the concept of care, but Stiegler goes beyond Foucault. In fact, care can become a 'place' of pedagogical learning. Stiegler (2014; 2003) recovers the concept of care also in the sense of taking care of knowledge, reinventing knowledge. How can we take care of knowledge considering that knowledge is often intrinsically in contrast with adaptation because of its critical nature? For Stiegler, companies that rely on control end up producing uncontrollable individuals, left to themselves, who no longer believe in the world. If by 'enchantment' we must understand a sort of projection of desire and by 'disenchantment' we rely on the concept already proposed by Max Weber, Stiegler instead proposes an operation of re-enchantment of the world, an operation that aims at a return in a context of associated milieux. In other words, according to Stiegler, digitalisation makes new collective identification processes possible within associated milieux, while the analogical and consumerist models of the 20th century had produced dis-individuation. For the French philosopher, digital technologies (today at the service of the dis-individuation of existence) are techniques of the spirit which,

if properly socialized, would no longer be a cause of loss of individuation (today the actual generation of online communities is a product of marketing), Against what he defines industrial populism, Stiegler proposes to start from capitalism, but bearing in mind that it will not survive unless it arouses a new spirit of capitalism (Stiegler, 2012: 71), where 'spirit' means what overflows from instrumentality, something that cannot be exploitable. It is a matter of re-establishing individuation as an association and dialogic competition, that is, rethinking the stage of trans-individuation in the digital age.

Above all it is useful to highlight two aspects which ultimately concern instruction and education. Two matters that, for Stiegler, characterize the contemporary: the phenomenon of the destruction of attention and the affirmation of a condition of symbolic poverty, that is a loss of individuation coming from the loss of participation in the production of intellectual symbols (concepts, ideas, knowledge) and sensible symbols (arts, know-how, customs),

Stiegler's objective is an overturning of dissociating consumption, meaning to give rise to a positive pharmacology that allows a critique of the capitalist political economy to transform it from the inside. It can be assumed that the hypothesis of positive pharmacology elaborated by Stiegler is an application of a principle present in the existing, only in part, at the base of the construct of resilience. That is because Stiegler, in my opinion, implicitly puts it into question, expands it and formulates it in terms of invention (Vignola, 2012 and 2014), taking into account a vision that reflects Simondon's philosophy.

Conclusion

Stiegler, rather than a resilient attitude, proposes a practice of invention: it is not so much necessary to adapt, but 'to adopt' a different predisposition towards the existing, for example to rethink a different use of digital technologies (Stiegler, 2012: 36), Speaking about invention, Stiegler, in an interview (Buseyne, Wambacq, 2016), for the magazine *La Deleuziana,* states: «We must become the almost-cause of the nothing-of-nihil», clarifying:

«It is precisely in the moment when we say 'here there is negative' that we must not resist, but invent. Being worthy does not mean to be passive or resistant (that is 'reactive' in the sense so often invoked by Deleuze), but being inventive: it means to propose a new disposition, as Deleuze and Guattari say, an organological disposition, that is, a disposition allowed by technological invention itself, and as a reality of the repetition of which one dies and heals».

An added value of Stiegler's reflection is an attempt to also indicate the path of practices. Above all, he does it by starting the experimentation of contributing categorization protocols, based on the hermeneutical Web model. The economic logic of the current web is a logic of traces rather than a logic of documents. As we know, the web cannot be only a semantic web (a computing network) but a hermeneutical network. Stiegler develops, for his own philosophy lessons, a device, a contribution annotation protocol, specific for online philosophy courses, which opens the field to the traceability of the noetic processes revealing and tracing also the dissent and not only the consent.

In conclusion, if by resilience in education we mean a practice of self-care, of others and of knowledge, it can be argued that, starting from the suggestions offered by Stiegler's philosophy, some aspects can be deconstructed to be discussed and of course to be expanded and deepened. It is a matter of opening the way to a contamination that can become the foundation of elements of inspiration for new or useful practices to overcome the limits that can be found in the current ones. The aim is to proceed by accepting the interdisciplinary

vocation of the construct of resilience on which the project is based, to rethink, today, the objectives and conditions of possibility, not only of an education to resilience, but of an education in the broad sense, as an education to come, in these times marked by traces of new and ancient revolutions.

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A Participatory Exploration of the Relationship between the Focus on Academic Achievement in UK Education Policy and Adolescents' Wellbeing and Mental Health

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Keywords: *Resilience, Agency, Education, Governance, Mental Health*

Introduction

«*Something has emerged from you which surprises, which astonishes and which denies everything which has made our society what it is today. That is what I would call* the extension of the field of possibilities*. Do not give up!*»
J.P. Sartre (1968, my emphasis)

In 2018, inspired by two broad questions «But what kind of education? For what kind of world?» (Abbott, 2010), I carried out a pilot study as part of my Master in Social Research, investigating how 11 year-olds' (Y6) experience of teaching and learning in London influenced their well-being and subjectivity.

The investigation unearthed the incongruencies of the UK's educational system generated by ongoing examinations and a pedagogy to-the-test; it explored the past, present and future 'possibilities' generated by students to influence their wellbeing, both as coping mechanism and expressions of resilience. Garista (2018) defines Resilience through its ability to recover from a trauma, and perhaps even get stronger because of it, like 'bamboo sticks'; adolescents' narratives and the people supporting such narratives, what Garista (2018) refers to as the mentoring factor in a holistic education for resilience, become central to the acquisition of resilient skills.

While I considered the school-environment as «an assemblage of behaviour policies, physical spaces, curricula, school ethos, teaching and learning practices» (Bonnell, 2013a). I analysed it with the actors involved in the day-to-day of schooling: students, parents, teachers and school leaders. As a result, I identified divergent pulling factors concerning all the actors and which generated ambiguous expectations and relationships; I also noticed how the importance students placed on being resilient and agentic-selves countered the impact of undesirable structural forces.

The following summary of my pilot will be carried forward to support a similar research with y12-13 cohorts (16-18 y/o); more emphasis will be placed on mental health (MH) and a reflexive analysis on Resilience processes, which incorporate students' accounts and life-histories' narratives, as Garista (2018) suggests.

1. Methodology and epistemology

1.1. Participatory Action Research (PAR) and ethnography

Much as the distinction between participatory and action research was an important area to delve into, for this research a combination of the two was the ideal methodological reference reflecting my research intentions and feasibility of outcomes. For example, PAR's bottom-up and reflexive approach could be

less alienating for participants as it re-presented the school's democratic potential, where democratic opportunities were available. However, drawing on several PAR projects I carried out as the student-council coordinator in my old school, several PAR issues needed extra attention:

1. Did participants offer reliable perspectives on teaching and learning that expose the school-environment's influence on students' MH?
2. To what extent were their perspectives 'qualified'?
3. What constituted qualified participants' voice and leadership?
4. What if participants' knowledge was used by school leaders to control them further?

Considering these pressing questions, I argued that PAR provided a platform for social actors to be put at the heart of the debate of adolescents' MH and teaching and learning's influences. Finally, ethnographic methods such as participant and non-participant observation supported my participatory epistemology, namely, a double-take on knowledge constitution. I argued that knowledge was equally produced and emerging within the research field, imbued with participants' 'meaning-making', and my interpretations - a convergence of multiple hermeneutics. Here student-participants extended the 'field of possibilities' to be agents of change in their lives; firstly, by reflecting on their acquired Resilience skills and stories, secondly, by articulating and conceiving the school-environment not only as part of 'governance', but as a seasonal process in their lives, albeit a central one.

2. Findings and discussion

This section presents three overarching findings. I first employed Foucauldian lenses for theory-verification (Wolcott, 1992 in Bell, 2014), to unpack historical and political roles of education, then, to frame the findings within a socio-political, pedagogical and psychosocial framework, some ethnographic examples were employed to support theory-generation (ibid.).

2.1. Overarching findings/themes

a) Teachers, students, parents, and Headteacher often found themselves pulling in disparate directions, with detrimental impacts on relationships and WB.

On one hand, teachers and students struggled to balance their relationships with professional and personal drives under the strain of schools' measurements; on the other, parents and the headteacher stressed the importance of exam results to sustain wider structural pressures. For example, teachers had to balance their anxieties about professional values, such as offering a holistic, creative and broad education as emphasised by teacher training, with the strains of regular testing, examination and their preparation. Similarly, students had to balance their anxieties stemming from parental expectations and societal demands with more basic needs related to their growth and their expectations as learners, often overlapping with identity-making, self-discovery, and puberty. We discovered that teacher-student relationships were pivotal to overcome school and exam-pressures, which also included subject content, competence, and interests, as generated through teacher-student relationships: such relationships were deeply complex.

b) Autonomy and independence (Agency), as well as a focus on what constituted 'Resilience', could calibrate students' WB and schooling's negative structural influences.

It was evident that students' perception of their independent learning diminished with rote exam preparation (e.g. all students found it demanding to start

head-on in September with mock exams), while they asserted that taking risks and playful exploration were the glue that engaged, motivated and occupied them constructively.

Overall, this was a complex finding, perhaps because it was counter-balancing the structural focus pervading my initial approach: how could a query on the impact of exam-focused schools concerning WB lead to theorizing Agency and Resilience as beneficial to WB? Dean's and Deci and Ryan's arguments, that WB is inherent to competence, autonomy, and relatedness, helped me unpack the conundrum.

While Dean (2010) argued that measuring levels of WB involved asking how societies can ensure their members' enjoyment of good health, free participation in society and the ability to think for themselves, Deci and Ryan's Basic Psychological Need Satisfaction/Frustration criteria (2000 - BPNS/F), reinforced the point about having optimal agentic factors to enhance WB, leading to healthy psychological functioning, in relation to:

- Autonomy: The feeling that one can act with a sense of volition, endorsement, willingness, and choice
- Relatedness: Feeling related to other people, having intimate and legitimate relationships
- Competence: The ability to masters one's environment

During the pilot, examples of Agency and Resilience were expressed by students' coping and resilient mechanisms as elaborated in the problem-solving-tree task[3], to cope with exam pressure, but were also reminisced and elaborated as part of their participation in this research. For example, when they recollected expressing themselves within the school-environment for a convenient outcome, independent actions, as well as interdependence, negotiation and collaboration, subversion and more. However, the limited opportunities to be agentic-selves in Y6 were bemoaned by most students, who resorted to more Resilience stories and attitudes.

So, while Agency could be theorized as a means most likely leading to happiness, a consequence of knowing to have made choices and produced ‘results', Resilience could be theorized dynamically, through an education of Resilience (*a la* Garista), through resilient experiences, attitudes, narratives and stories that initiate new pedagogical discourses (next finding).

c) Schooling and the resilient narratives students built within it offer nourishing experiences and students benefit from remembering and reflecting on them.

All the happy memories the photovoice method brought to the fore are part of what Cieslik (2019) called the ‘ebbs/flows' of life, taking place in the school's microcosm. Drawing from Cieslik's longitudinal study on happiness (which captures the everyday experience of the struggle and joys of people over a 7 years period), I agreed that happiness/WB was something people ‘have and do'; as Cieslik argues «happiness is both an abstract ontological concept but also about the things that people do to make themselves happy, happiness as a creative response to structural pressures» (Cieslik, 2019). In other words, one way to ‘do' Agency and bring to the fore Resilience, as a choice or a coping mechanism.

Structural limitations are inevitable as are students' creative responses to it, adaptations, and negotiations. This means that people's responses to structural pressures are complex, varying and their impact cannot be tested in a brief period. But, by identifying and understanding such responses and adaptations we can further support children's development without necessarily manipulating it. but facilitating it.

[3] Using the tree metaphor: trunk=problem/s, roots= cause/s, branches= consequence/s, fruits= solution/s

3. Recommendations

By triangulating broad educational aims, psychosocial problematics of compulsory education and overarching findings in the field, I aimed to produce a persuasive argument that identified the significance of education in the students' WB debate to which it controversially relates to, and suggested a way-out:

1. By investigating the processes undertaken in school that would impact students' WB, I discovered that teachers struggle to balance a more holistic and broad education, characterizing teacher training, with the strains of accountability-measures. Therefore, teacher-student (pedagogical) relationships are pivotal to overcome school and exam-pressures, incorporating subject-content, competence and interest as generated by the teacher-student relationship and the learning intrinsic to their 'exchanges'.
2. By exploring the meaning schooling has come to hold for all participants and how this may inform improved understanding of students' WB, I discovered that parents and headteacher's stress on the importance of exam results - to sustain wider social/structural and existential pressures - result in added stress affecting students' WB. However, as a whole, the school-environment offers students nourishing experiences and they benefit from (remembering and reflecting on) them.
3. By identifying pros-and-cons of the current schooling system I discovered students' perception of their independent learning, and curiosity for learning, diminished with rote exam preparation. More ad-hoc notions of Agency and Resilience with/in the school-environment, but also researched, agreed and implemented as part of school cultures, could reconcile the subjective-hopes intrinsic to WB with structural objective-influences. Agency and Resilience constituted students' survival mechanisms, to generate 'meaning' within the structural constraints of schooling.

4. From wellbeing to mental Health

My ensuing doctorate in a Sixth Form College (London) stems from current data suggesting that WB and MH are at their lowest amongst 16-19 y/o in the developed world (WHO, 2014). By adopting a similar methodology and stance over 10 months, I will strictly distinguish between WB and MH. This is due to the recent ambiguous 'yoking' (Gillies, 2018) of the two concepts through governmental policies, instrumentalized for economic efficiency and ideological ends (Exley, Ball, 2014), part of a global discourse on 'education governance' (Wilkins, 2016); I will emphasize not only how WB's rhetoric in schools got entangled with the clinical aspect of MH but also with 'character building' and 'behavior for learning', clearly supporting neoliberal 'educational governance' agenda.

Such 'yoking' raises questions for teaching and learning practices, teachers' roles, students' subjectivities, parents' expectations and education of and for Resilience, while school leaders seek, varyingly, to balance an exam driven culture with accountability measures.

The research question will shift the focus from 11 y/o's WB to 16-18 y/o's MH: To what extent does a policy focus on achievement/attainment, in a 6th Form College in London (UK), influence adolescents' MH?

I firstly intend to frame adolescents' MH in terms of its impact on adolescents' subjectivity as produced in the school-environment and the policies upholding it; secondly, there is a potential for mental ill-health (as generated in school/colleges) to be embodied by students as an agentic response to constrains (this partly emerged from the pilot data), representing embodied knowledge of the world. For example, during the pilot, it was quite telling how, despite substituting my long-term interest in MH with WB, it was students themselves who drew in mental ill-health and added physical ill-health as a result of it – from my field-notes: «Sir I could not sleep/eat/function during my SATs or in preparation for it, or… My body resented the school pressures during SATs, or…I was restless for weeks before and during SATs…, or…I had eating issues the week before SATs…».

The body seemed to be claiming its fair share of attention!

Conclusion

Through Participative Action Research (PAR) and Ethnographic approaches, I discovered that the headteacher's and parents' emphasis on the importance of exam-results was juxtaposed with the ambivalent experiences of students and teachers. We saw that students, despite uneasiness generated by the exam-focused school for so many different stakeholders, had had nourishing experiences within the school-environment processes and showed possibilities for development. However, such nourishing experiences did not detract from the formal education's shortcomings concerning students' WB. The importance students placed on being resilient and agentic-selves countered the impact of undesirable structural forces on their subjectivities. Re-thinking students' Resilience and Agency within the school-environment constituted the final recommendation for students, parents, leaders, and policy-makers to facilitate a healthier school experience.

On one hand, the notion of Agency and Resilience came to constitute key ‘analytic interests' (Braun, Clarke, 2006) to build bridges between schooling and WB; this is because both countered top-down, ideological forces with students' conscious and unconscious attempts to be resilient and agentic-selves. On the other, the complexity of teacher-students' relationship, performed while preparing and undergoing SATs exam, brought out additional contradictions from within the classroom. Understanding the contradictions better is timely.

In conclusion, inspired by Walkerdine's (1998), education can sustain adolescents' MH and WB by producing the child in its terms, without losing sight of its needs, wants and rights to emancipate itself. To paraphrase Sartre's starting quote:

«Something emerged through our participatory-research, which questioned some of the processes which have made our school-environment what it is today. That is what I would call the extension of the field of possibilities. Do not give up!».

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'Ricilience': the Resilience of Rice. A Documentary Film Tells the Case of Social Learning that Is Transforming the Italian Rice System

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Introduction: through the lens of resilience

The aim of this paper is to present a Public Engagement (PE) initiative within a research and development project which is a case study. We will focus on two main issues: the role of resilience in the processes of social learning in the field of the Social-Ecological Systems (SESs); the resilience perspective ('resilience thinking') as an approach to understand what to communicate and why within a PE initiative, to lead the planning of a PE action. The paper is divided into the following sections: 1) theoretical background on resilience of SESs and PE; 2) presentation of the case study; 3) lessons learned; 4) conclusions; 5) references.

1. Theoretical background on resilience of SESs and PE

1.1. Definitions and key concepts concerning SESs

Socio-ecological system means an ecosystem and the social system that uses and depends on this ecosystem. Therefore, it is a natural and human system intrinsically linked, integrated and interdependent (Berkes and Folke, 1998). The SES concept crosses different scales: the local one, such as the rice district, up to the global one, such as the Earth system.

The resilience of a SES is «the capacity to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks» (Walker et al., 2004).

In this definition, there are two components. There is adaptability or «the change for persistence» (Folke et al., 2010), that is the ability to change along the same development trajectory in order to persist in the same identity. There is also transformability, which is the ability to change into new development trajectories. It requires the capacity to use disruptions as opportunities for development, renewal and innovation.

As far as the community is concerned, resilience requires a reassessment of the current situation, a shift in perception and meaning, a recombination of knowledge and experience. Moreover, it also requires the interaction among different actors, the development of social networks, the mutual learning and collaboration, innovation, action, social mobilisation, institutional and decision-making experimentation, too. It affects a combination of formal and informal learning that is social learning.

This deep learning process leads to a social change, a profound transformation of values and behaviours to surf the social-ecological transition. The public institution may support or depress resilience. The key role in building resilience is expressed by: coordinating and guiding the scientific community; facilitating small-scale experiments and exchange among them (cross-learning); increasing public awareness; involving the stakeholders; managing the political and financial system for support.

1.2. Definitions and key concepts concerning PE with science

PE is a relatively new concept, especially in Italy. According to ANVUR (the Italian National Agency for the evaluation of the university and research system) in the Research Quality Assessment 2004-2010, PE is part of the activities of the so-called Third Mission of researchers, that is the «openness to the socio-economic context through the exploitation and transfer of knowledge».

Subsequently, the Research Quality Assessment 2011-2014 specifically defines PE as «the set of non-profit activities with educational, cultural and social development value». The definition was then changed to «a set of activities institutionally organized by the university or its non-profit structures with educational, cultural and social development value and addressed to a non-specialist audience». In 2014, Stilgoe and colleagues well analysed the origin and the evolution of the concept of PE. PE is part of the wider process of opening up science and its governance, a sort of democratisation of science which is currently referred to in various ways in European programmes: open science, citizen science, responsible research and innovation, science in society.

In the late eighties, people start talking about Public Understanding of Science (Thomas, Durant, 1987), PUS journal is launched in 1992.

Then, 'understanding' gradually and incompletely shifts to 'engagement'. Afterward, there is a proliferation of initiatives, dialogue processes and engagement exercises, whose focus is on means and processes, on the *how.* The literature becomes a litany of engagement case studies and evaluations (O'Doherty, Einsiedel, 2012; Irwin et al., 2013).

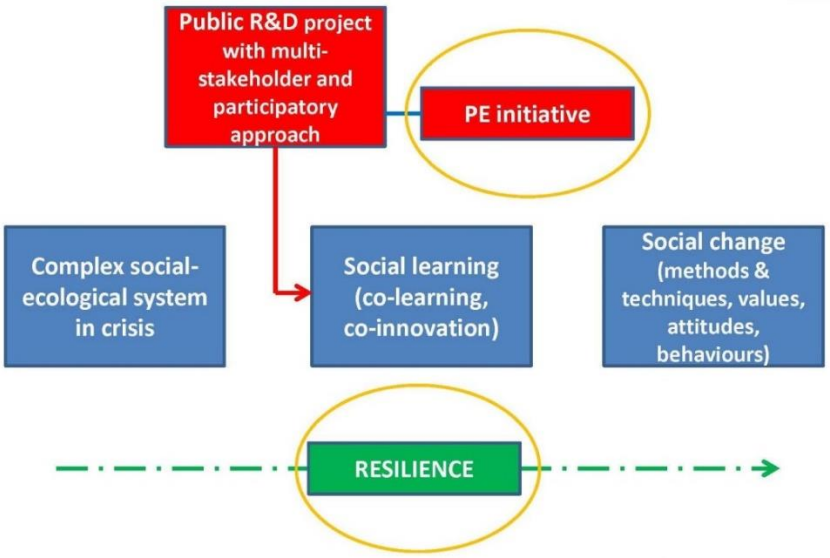
The normative commitment prevails over the idea of PE. It is necessary to do PE because this is required by the authority, for example by who finances the project, or by the research institution or by the role of researcher (the Third Mission). And, given that most scientists and their governance are still reluctant to do PE, it seems to prevail the approach for which more PE is better. But the profound reasons for which it is done - the *why* and the *what* - are poorly examined. Quality becomes important (it is public money!), but the search for internal perfection in the processes of dialogue has lost sight of PE deepest meaning and reasons, that is a more dialogical science project. The suspicion is that PE serves to strengthen the power of the research system, to gain public confidence, to enhance the image of public research, to create consensus. Instead of opening science, it seems to close it while avoiding possible alternative views. On the contrary, the PE deepest meaning should be to create opportunities for mutual exchange, debate, even dissent, and opportunities for the re-thinking of the research system on its policies and practices. This also means that 'meaningful dialogic public engagement is both costly and politically risky' (Kleinman et al., 2011). «Productive engagement exercises typically open up areas of dissensus and can generate further questions [...] unintended (at least for the people who pay for it) consequences» (Stilgoe et al., 2014). As Barnett and colleagues al. (2012) have argued, «the construction and expert control of public concern invites interactions framed in terms of expert reassurance rather than mutual exchange and engagement». «Stage-managed spaces of engagement

preclude the potential for 'uninvited publics' to engage with science and technology and widen the interaction and scope for reflexivity» (Wynne, 2011 in Stilgoe et al., 2014).

2. Presentation of the case study

2.1. The case study structure

FIGURE. 1. *The case study structure*



Source: Our Analysis (2019)

2.2. The crisis of the Italian rice district

Rice is a fundamental food in the diet of the world population, it is the third crop in the world and Italy is the largest European producer. Intensive monoculture cultivation i.e. rice on rice, year after year, in a concentrated area between Piedmont and Lombardy (the Italian rice district), with high chemical inputs (pesticides and synthetic fertilizers) has very high consequences on the environment. The quality of surface and deep water, soil, biodiversity and landscape is compromised. The health of the population living in the rice-growing district, consumers and agricultural operators, is also threatened by the current rice production.

With the competition by the Asian Countries and the price crisis, this rich system has stalled, and the environmental crisis has widened to an economic and social crisis.

The transition to organic rice farming is perceived as a solution for the environmental protection, the economic sustainability of the farm (the market for organic rice is expanding with prices that come to be three/four times those of conventional rice), the consumer safety and as a measure of climate mitigation, but it actually meets several problems. Organic rice farming provides for the total elimination of chemical inputs. Productivity must be pursued through a complex work of varieties selection, crop rotation and agronomic techniques. This work requires a sophisticated know-how, experience and skills that the Italian rice growers have long lost, because they were completely dependent on technology suppliers. The spread of organic methods has taken place rather slowly and organic rice production has been limited to a niche of pioneer farmers

who, in the absence of previous knowledge, test innovative practices with a self-help and trial-and-error approach, as in Padel (2001).

Over time, the decrease in the prices of conventional Italian rice, due to competition from Asian countries, and the contemporary rise in organic rice prices have made this production more and more interesting.

Unfortunately, organic farming is susceptible to fraud. In fact, organic rice producers have increased dramatically, but the problem of «» (false organic rice) has emerged. At the end of 2014, a television journalistic investigation (Report on Rai3) reveals the phenomenon of *falsi bio* (false organic producers) and triggers a crisis that affects the entire rice industry, both organic and conventional, and which persists. The crisis affecting the sector is an environmental, technical, socio-economic and ethical crisis.

2.3. Riso Bio Systems (RBS) project and the call for participatory research

In this context, the Ministry of Agriculture (MIPAAF), which is responsible for national organic governance, gives a strong response to this crisis investing in a research and development project: the RBS project gathering Italian scientific excellence on rice for three years (2017-2019).

This project studies organic rice farming at 360 degrees to give concrete indications to the legislators, useful to change the system that regulates, controls and certifies organic rice. The project supports a network of farmers, scientists, public officials, and buyers experimenting organic farming, activating a process of mutual learning, integration and co-creation of knowledge. The RBS project is a way to foster resilience and to explore options for deliberate transformation of the rice SES. Through this project, the MIPAAF also wants to give consumers a positive image of the sector, to extend the organic farming method to new rice growers, to convince the entire industry that organic can be done and can be done correctly. To this end, MIPAAF calls on the researchers to adopt a different approach to research, which requires active involvement of all actors in the sector, starting from farmers.

2.4. The case study: the documentary film

What?

A documentary film tells the stories of the protagonists of the multi-actor research network, reflecting on the motivations and modalities of the change. The film shows that the crisis of the sector is a crisis of the values of a society flattened on the 'here and now', dominated by the economic thought. It highlights the profound cultural transformation that has affected the actors of the network and has allowed them to change their attitudes even before their habits. It shows that learning relationships, among the network's actors, count in that transformation.

Why?

The project specifically required finding a creative way to express participatory research in PE. We have chosen to produce a documentary film because it gathers and shapes different self-narrations enlightening the ethic and social motivations of the protagonists themselves and of their network towards food sustainability and PE (aiming at the 2030 UN Agenda goals):

- telling their stories, the research-actors build their ethic self and strengthen their network relationships;
- the documentary film is a strong creative vector to rapidly reach and stimulate a wide audience, through festivals, educational channels and social media.

How?

We interviewed most of the actors of the research network. We collected their life stories to observe the developing relationships among organic rice growing, science and participatory research in a PE project. During filmed and recorded sessions, the interviewed freely narrated their experience following a few neutral guidelines supplied by the interviewer.

After having analyzed the whole corpus of the life stories, we decided to build the script out of three emblematic actors. The screenplay is based on their narrations. The documentary film wants to be an emotional tale, not a technical one. It shows the role of the emotions that are intrinsically interwoven with thought in any form of learning. The foreseen dissemination will involve film festivals and social media (individual fruition) and schools, conferences, laboratories (guided fruition).

3. Lessons learned

We learned that PE is a training opportunity for the people involved. They gain awareness of their skills, of the value of their choices, and of the role of research in the transitional process towards a more sustainable rice cultivation.

The initiative is a field of experimentation of new ways to communicate research, in spite of the resistance of some research partners. Our initiative of PE has been time consuming, costly and 'politically' risky. There is a competition of conflicting messages (i.e., from informal engagement spaces, like social media and politically motivated activities), PE occurs within a flow of messages of different origin, sometimes conflicting. The researchers must be aware of it and accept the risk of not being the only voice and, even the most authoritative.

Conclusions

The resilience perspective in PE dialogue stresses the capacity of SESs to shape change by making it desirable, attractive, easy. It inspires, guides and organizes thought and inquiry, looking for and telling resilience stories. It also uses resilience role models, providing examples to be imitated. It emphasizes emotions as inextricably linked to every learning process and driver of decisions and cultural change

The resilience perspective in PE dialogue copes with uncertainty, unpredictability and surprise through open-ended 'stories'. This perspective looks at the broader project of dialogic science: no more scientific evidence, but exchange to re-think policies and practices.

Finally, it views engagement in its wider political context, enrols decision-makers in dialogue, and allows impacts on science governance. And now, what next? It is necessary a further reflection on the outcomes (*what this activity has achieved?*), and the evaluation of the quality of the engagement (*is PE worth it?*).

Monologue should become conversation, moving towards a reflexive PE.

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The Complex Chains of Education Inequalities in Italy. Understanding Interplays between Ascriptive and School-Tracks Factors

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Keywords: *Large Scale Assessments, Inequalities, Social Origins, School Tracks, Italian Upper Secondary Students*

1. Aims and scope

The issue of stability and change in educational inequalities over time is a classic topic in sociology of education and a substantial issue of the long tradition of sociological studies on stratification and social mobility. In addition to the classical statistical analyses estimating the effects of ascriptive variables such as class, social, cultural and economic inherited capitals on educational attainments (Shavit, Blossfeld, 1993; Breen, Jonsson, 2005), data availability from test based large-scale international assessments (OECD-PISA, PIAAC, IEA, TIMMS etc.) have paved the way to new research approaches to gauge and compare the impacts of other relevant factors. One of the most crucial opportunity is to calculate the effects of the outlined variables non only on the level and field educational attainments, but also on learning outcomes conceived as a set of learned skills measured via standardized items, ordered via numerical scores and ranked along a scale of quantified values (Barone, 2006; Martins, Veiga, 2010; Giancola, Viteritti, 2014; Oppedisano, Turati, 2015).

In this paper, we comment findings from multiple estimations and correlations statistically obtained in order to assess the effects of ascriptive variables on educational inequalities among Italian students' achievements measured via OECD PISA scores in school skills and educational expectations. Additionally, we split the effects deriving from ascriptive variables and those from students' track choices among the three upper secondary options available: *liceo* (lyceum), *istituto tecnico* (technical track) and *istituto professionale* (professional track). We aim at finding out social and educational mechanisms generating differentials in skills outcomes and at intercepting and evaluating the influence of ascriptive variables on track choices.

In a separate analysis, we assess the impact of both type of variables – social origins and track choices – on skills scores obtained by 15 years-old students after PISA tests in reading, mathematics and science, by employing all the available PISA waves.

Finally, we compare the effects of ESCS, of ESCS controlled by PISA test scores in reading, mathematics and science and of ESCS controlled by scores and school-track on students' propensity to enrol in tertiary education. ESCS is the PISA index of economic, social and cultural status, created using student reports on parental occupation, combined with the highest level of parental education and a sub-index of home possessions related to family wealth, home educational resources and the availability of 'classical' cultural items such as classical literature, books of poetry, and works of art.

Several surveys relying on data from PISA or INVALSI already proved that the variation in test scores by Italian upper secondary students depend more on

school track choices and lesser on social origin, usually measured by the ESCS index (Giancola, Fornari, 2011; Contini, Scagni, 2013; Azzolini, Vergolini, 2014; Giambona, Porcu, 2015; Barone, Ruggera, 2018; Pensiero *et al.*, 2019). Nevertheless, what available studies do not tell so far is whether and at what extent the influence of social origin both on school track choices and on test scores has been changing over time, from a generation to the next. Previous studies do not state whether social origin and educational choice generating separate as well as joint effects have increased, decreased or stabilized over time. Our paper seeks to answer to these questions for the period 2000-2015.

2. Data and methods

We relied on data of the Italian national samples from the six first OECD-PISA waves of test assessment, which have been conducted in 2000, 2003, 2006, 2009, 2012 and 2015. A robust statistical probe based on national data on enrolment rates in first and second year of upper secondary education is the basis to observe changes occurred in the distribution of students among Italian upper secondary tracks. We thereafter show changes and continuities in the ratio distribution of students among school tracks considering the reform occurred in 2010. The reform enacted in from school year 2010/2011 and the process ended in school year 2014/2015, when the new system was completed for all grades: curricula in *licei* have been revised, adding specific learning objectives for each type of *liceo* and detailed learning rationales that students are expected to acquire as the basis for implementing competences. *Istituti tecnici* (technical institutes) have been rationalized into economics and technology sectors, with 2 economics-based programmes and 9 different technology-based programmes, resulting in 11 different options. *Istituti professionali* (*vocational institutes*) offer vocational education in the service sector, the industry and crafts sectors, with 4 service sector programmes and 2 industry and crafts programmes. One of the semi-hidden rationale of the reform was to mitigate the unbalance in terms of status, prestige and hence qualities of teaching between the higher social ranked *licei* and the stigmatised lower census image of technical and vocational tracks (*istituti tecnici* and *istituti professionali*) by promoting a wider bulk of educational offers from the formers in order to intercept students from a wider spectrum of social classes and a straightened quality learning in the latter.

In order to observe the strength of effects of social origin, gender, geographical macro-areas, native or foreign background on school track choices, we developed a binomial logistic regression model for each of the six wave-database. We then conducted a diachronic analysis of the effect of the same independent variables and of the track choice on students' scores on standardized tests (OLS regressions per wave). That analysis assessed whether and how much the variation in the allocation of students among the three tracks are correlated to higher or lower scheme of reproduction of inequalities in students' scores or at the opposite to significant changes in the relation between ascriptive versus school-tracks variables.

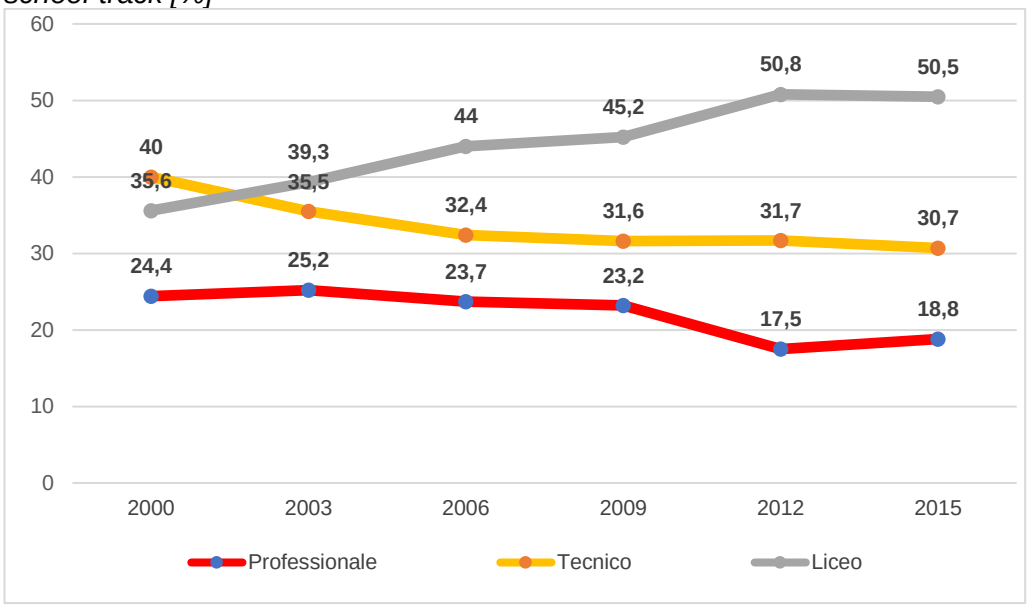
Thereafter, regression models have been developed for each wave. The first model uses a topic skill – reading – as a dependent variable and two other skills in rotation: mathematics and science. Each model is replicated 3 times and works on social backgrounds as independent variables. The second model shows how the effect of social backgrounds varies over time when the school track variable is added to social backgrounds.

3. Findings

The enrolment data among the three tracks of the Italian upper secondary schools in the period 2000-2015 show a steady growth in attractiveness by *licei* at the expenses of *istituti tecnici* and *istituti professionali* (Figure 1). *Licei* counted for the 35.6% of all the enrolments in upper secondary school in 2000 when *Istituti tecnici* attracted a higher share (40%) and *Istituti professionali* the remaining 24,4%. Fifteen years later the distribution reversed: *licei* were gone at half of the student population (50,5%) while *Istituti tecnici* and *Istituti professionali* were both declined, respectively down at 30,7 and 18,8%.

The steady growth in the number of students enrolling in *licei* implies a plausible 'democratization' of the population of this school track. This phenomenon confirms the strength of social imitation and the diffusion, transversal to social classes, of the expectation that *licei* offer a better social environment and the first step toward social mobility (Checchi, Flabbi, 2007; Ballarino et al., 2008; Panichella, Triventi, 2014).

FIGURE 1. *Italian students enrolled in upper secondary education by years and school-track [%]*

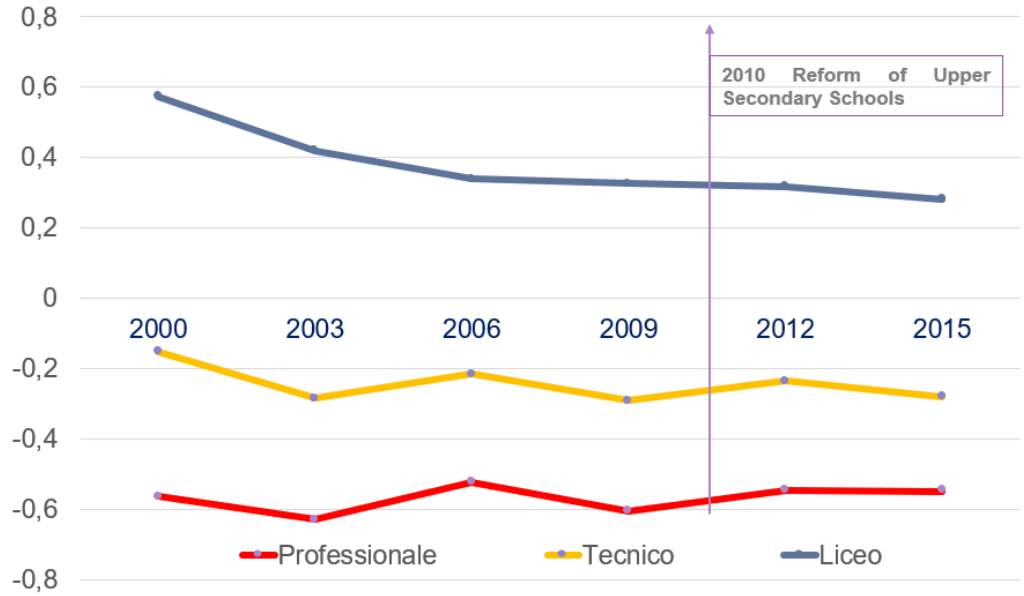


source: elaboration by authors.

Nevertheless, the enlargement of the student population attending *licei* does not automatically imply that the whole tracking system is moving toward social heterogeneity. Instead, it may well be that the proportion of *licei* students grows over time as more and more middle- and high-class families drive their children towards this kind of upper secondary school, increasingly shaping the family choice as a process of class connotation.

By measuring social heterogeneity via ESCS Index from PISA student population (average values of ESCS in the tracks), we find out that the 2010 reform reorganizing *licei*, *istituti tecnici* and *istituti professionali* has had a redistributive effect for *licei,* but not so much for *istituti tecnici* and *istituti professionali*, as Figure 2 reveals. Putting it be more correctly, social heterogenization at *licei* have been in place since before the 2010 reform, following a trend independent from educational policies, while enrolments in *istituti tecnici* and *istituti professionali* in relation to ESCS index have been fluctuating with ups and downs.

FIGURE 2. *Italian school tracks' social heterogeneity measured via ESCS Index by PISA waves. Standard deviations*

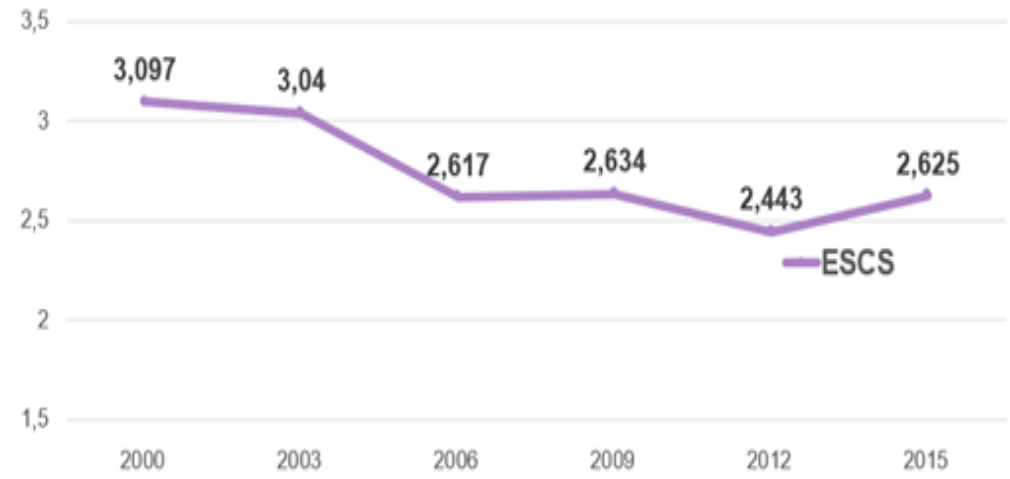


source: elaboration by authors on PISA data

Binomial logistic regression models allow to substantiate the effect of social origin, gender, native or non-native background and geographical area on school choices. Findings in this regard prove that the odds of enrolling in *licei* still depend mainly on social origin and that the influence of social background has remained quite strong and quasi-stable over time (Figure 3).

We are not able to asses a direct and evidence-based effect of the 2010's reform on the odds of enrolling at *licei* according to social origin, but Figure 3 shows that social origins counted more for the 2015 than for the previous 2012 enrolment cohort. It might be that the 2010's reform has had merely a short-term effect on heterogenization.

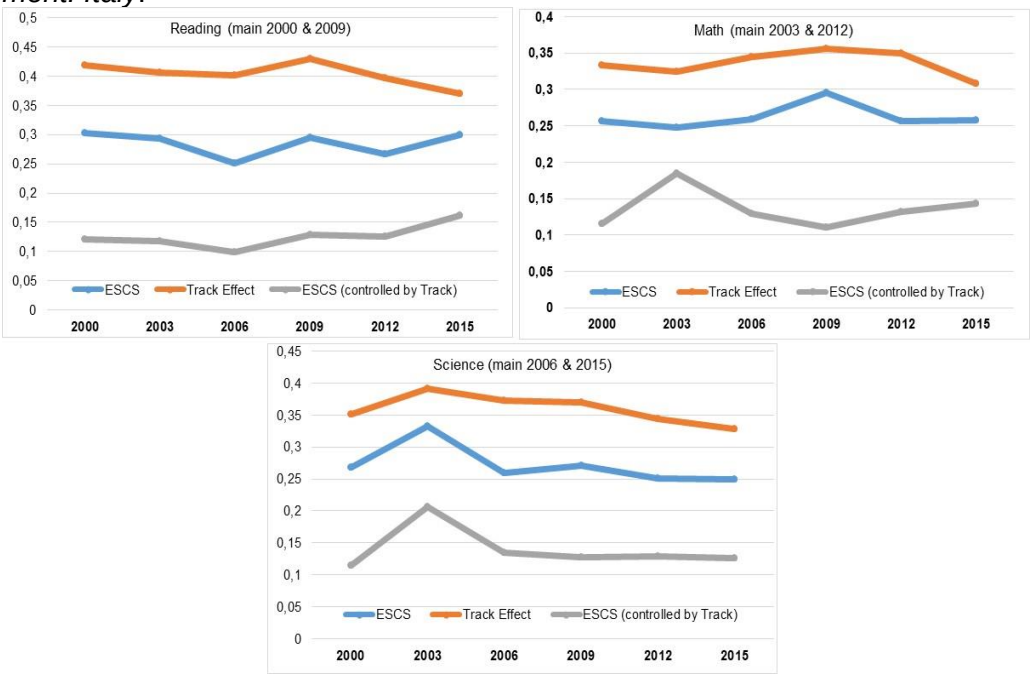
FIGURE 3. *Odds produced by social origin (net effect) in enrolling in* liceo *by year of enrolment. Italy*



source: elaboration by authors on PISA data

Attending *liceo* rather than *istituto tecnico* or *istituto professionale* entails a greater probability to score higher at PISA tests on reading, mathematics and science even if this correlation is declining over time as Figure 4 shows. Is this decline partly explained by the social heterogenizations going on at *licei*? It may be a realistic composite effect which need to be explored. But, if we look at the effect of social class (ESCS Index) controlled by school track on text scores, we have a reverse picture, where a rising trend over time is at play (except for science). The school track effect is quite constant over time (except anomalies resulting from the 2003 wave).

FIGURE 4. *Effects of ESCS, of ESCS controlled by school track and of being at* liceo*, on PISA scores in reading, mathematics and science by year of enrolment. Italy*.

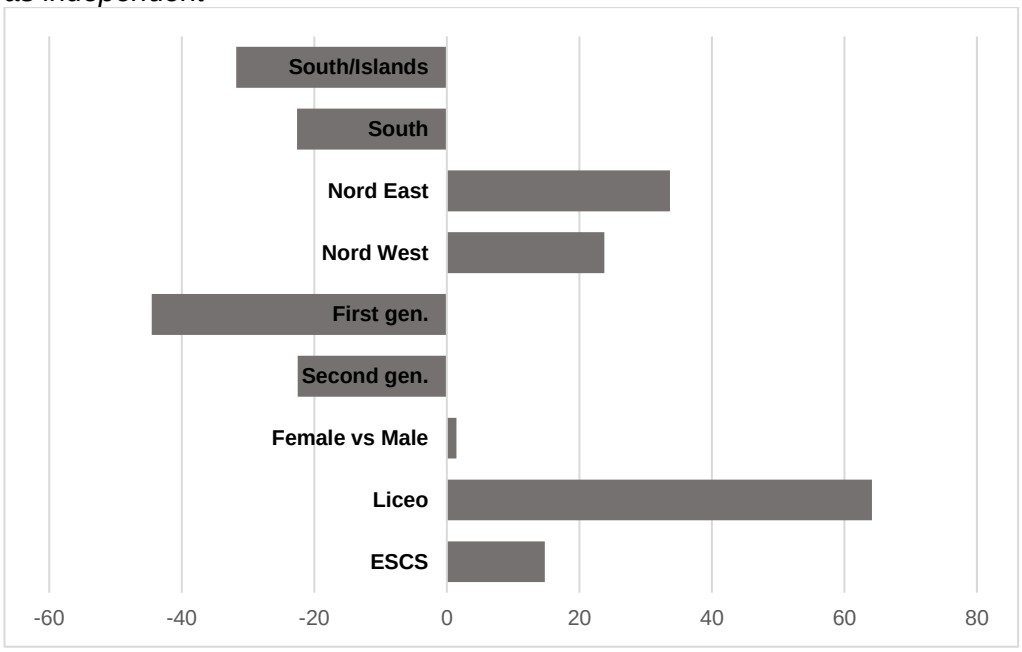


source: elaboration by authors on PISA data

Overall, therefore, we observe: *i*) a significant effect of social origin (ESCS) on the scores obtained by upper secondary students in reading, mathematics and science; *ii*) an even greater effect exercised by the school-track on scores; *iii*) still a remarkable effect produced by social origin on scores once the school track effect is controlled. It is then clear that a chain effect is at work: social origins affect learning outcome both as a driver of social, cultural and economical capital transmitted to students and as pattern of social influence on school choice.

Due to lack of space, we cannot show all the single regression models contributing to the graphs in Figure 4. However, for the sake of completeness, we give at least the example of the multiple linear regression model performed on the 2015 scores for 'reading topic (Figure 5). Complementary to the previous ones, the analysis illustrates the net joint effect of the variables assumed as independent in the models used for the diachronic representation (again, see Figure 4). Since PISA scores are calculated on a standardized scale, it is possible to graphically represent 'how much' a variable (or one of its modes) adds or removes a student's starting score in terms of PISA results. Findings show a very clear explanatory structure: the foremost effects are those produced by territorial gaps, migration background and social origin. But, once more, above all, the effect of the school track stands out.

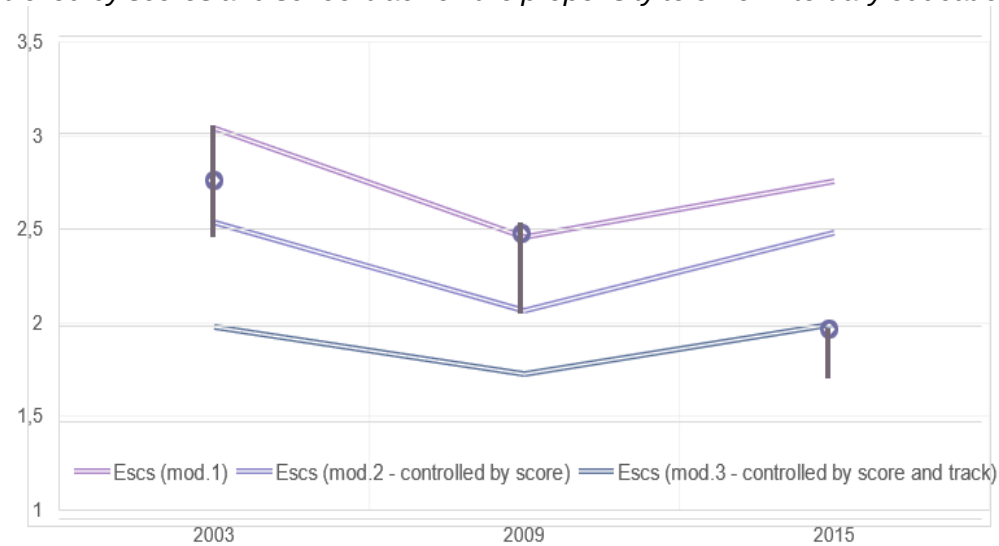
FIGURE 5. *Effects (as PISA score) on reading score of the variables assumed as independent*



source: elaboration by authors on PISA data (2015, 'reading' score)

Analysis aimed at configuring the combined impact of all the observed variables on students' training prospects have been carried out too, in order to assess the students' propensity to enroll in university courses after completing the upper secondary school (Figure 6). Operating logistic regression models, ascriptive variables are adopted as independent in a first round. Then the relation is controlled for scores at tests. Finally, the relation is controlled for school track.

FIGURE 6. *Effects of ESCS, of ESCS controlled by scores and of ESCS controlled by scores and school track on the propensity to enrol in tertiary education.*



source: elaboration by authors on PISA data 2003, 2008, 2015

In Italy the expectation to enroll in tertiary education is a matter of social class: the higher the ESCS index, the more likely the propensity to attend university

and that is true even after controlling between scores at tests in reading, mathematics and science and those score and school-track together.

Obviously, from a wave to another, results are heavily affected by students' anticipated replies on expectation to enrol in tertiary education (replies are irregular over time). However, the relevant finding is not the intertemporal deviation of the betas on the single trend (the dependent variable is a categorical with deep variation in the distribution over time), but rather the distances from one beta to another in the same wave. As illustrated by the model three and reported in the graph, an important part of the propensity to enroll in university courses – even more important than the performance measured by test scores – is explained by the type of school attended by the student, also considering the reduction of the ESCS effect absorbed by the school track.

Conclusions

We can conclude remarking that in Italy social origins still explain a great amount of school tracks choices in upper secondary school tracks. *Liceo* keeps on preserving a selective effect on students' prospects via social origins, even if this effect seems to start being stronger via students' scores rather than rates of enrolment, as it has been up to the recent past. However, the Italian 2010's reform of the upper secondary school system, aiming at de-marginalize technical and professional school tracks, does not seem to have reached the goal.

Mechanisms of variance between schools via 'track choice' appear to be relevant, working as a strong signal of social segregation.

Overall, once again tested, the Italian education system still has strong traits of inequity and marked inequalities. In the presentation of the empirical results, we have willingly omitted the Italian positioning in the international rankings which is low. If we instead consider equity, still we find that the territorial divides, social and intergenerational disparities, effects of the migration background (and therefore the lack of inclusiveness), context effects are strong and evident.

The analyses illustrated that there is a clear causal chain linking the social origin to the choice of the school track; subsequently the scholastic tracking shows its effect in terms of difference between the social composition of the various types of school. The type of school attended, then, strongly affects students' cognitive results (together with other individual and contextual variables). In the last step of the chain, the type of upper secondary school, the social composition of the school, the social origin of the student, together affect the propensity to undertake a university study course.

Concluding, the structure of the upper secondary school, subdivided into educational tracks and curricula 14 years old students are called to choose, is one of the key junctions where social inequalities come at play. Despite several empirical evidences, it does not seem to be an issue for public debate.

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The Pedagogical-Political Incommunicability in the Teachers and Educators Training: Perspectives and Strategies

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Keywords: *Pedagogy, Democracy, Teacher training, Digital Storytelling, Debate*

1. Wicked choices

If we could idealize the scene in which an educator is asked to talk about school, it would present itself as a long silence full of value and meaning or, if we really could not support this 'absurd' meaningful silence, it would be our hope to tell nothing more than an experience of observation of the continuous work carried out by a critical-practical approach to the know-how and knowledge of the training organizations (and 'formators of the trainers'), based on a dialectical and profound rationality capable of giving an account of the historically recomposed manifestation (always at time) of socio-educational complexity.

However, at this juncture, the realization of the conditions just mentioned seems to be a long way off, whereas it appears quite evident that a neoliberal intention increasingly insists on the world of education, bringing it into focus, that is by imposing visibility and readability, on the processes, on the determinations, on the quality. Especially regarding the secondary cycle.

There are exemplary evidences to which we can appeal to support this presentiment and, just as an example, we shall remember how:

- from a 'disciplinary' point of view, recently (but with a punctually cyclical frequency likely to bring the matter back to possibly structural factors) there has been a need to claim spaces for school-life for interpretative disciplines whose primary teaching should be the use strategic intelligence to recognize, predict, manage and prefigure ever more complex human scenarios. There was a need to mobilize to defend - 'by invitation' from Segre, Giardina and Camilleri (and many of us) - the dignity and usefulness of knowledge like History, to which the voice of whom (among others, the medical historian Gilberto Corbellini), citing the theory of Rosemberg, imputes to her a lack of scientificity. The consequence of this imputation is the proposal to invest (and teach to invest) better the critical energies of the students, addressing them, rather, to the expansion of knowledge, for example, statistics;
- from an 'administrative' point of view (and with reference to the decisions taken on the school at ministerial level) the most evident case is given by the progressive imposition of choices that disrupt the academic world – as a context of the research-formation of pedagogical-didactic knowledge, psycho-anthropo-sociological and disciplinary – and the world of school – as an environment internally marked by the dynamics that these knowledge interpret and preparation to face the external contexts in which these descriptions manifest themselves. A disarticulation that has taken the form of overcoming (or perhaps better than deleting) the proposal of the FIT formative model (certainly improved) intended in its best intention as theoretical-practical training to the difficult art of the formative care of adolescents and young men who grow , they study,

live, love, protest in our secondary schools, in view of their future participation both in the democratic life of the country and in its productive life.

We will now focus on this last point which tells about a progressive fracture that took place 'one way' or at the expense of only one of the poles in question. The technical (but indeed political and ideological) choice made has, in fact, materially eliminated the space-times, the knowledge-learning, the university skills-competences from the teacher training giving up:

- to any explicit and/or systematic training in areas aimed at promoting an understanding of the complex social dynamics (new poverty, new economies, new jobs, new mobility, new forms of socialization, etc.) of complex cultural dynamics (new languages, new imagery, new myths, new religions, etc.) of complex psychological dynamics (new neuropsychological discoveries, new evolutionary emergencies, new personal and professional risks, new evolutionary and coevolutionary models, etc.);
- to face the problematization of an education that, in order to be integral, is asked to be exploded in its diversified questions related to the models that can guide the structuring of an intellectual, ethical, political, affective, aesthetic, gender education etc .; to the awareness of the plurality and specificity of the places with which the integrated and integrating educational context must be thought, school, family, associations, local authorities etc .; to emerging themes with reference to an emancipatory perspective that, with the passage of time, takes on original and emerging forms precisely in reference to what humanistic-social knowledge can analyze;
- to a specific training (professionalizing and not motivated only vocationally) on the ability to mediate formatively and educationally the increasingly complex and open set of any discipline that today we know live in a constant condition of epistemological transit is not simple, regardless of whether it is of knowledgeable skills in the so-called human or natural sciences. And this, as a material fact, in the conviction that having a notion immediately means (that is without mediation, communicative in the first place) having competence in making it available educationally.

2. Is a dialogue among school, politics and society possible?

The exclusion of the university from the training of the future teaching class or, at least, its important marginalization means having heavily damaged the fibre of the intermediate social bodies fabric whose work is the dialectical elaboration of an articulated and multilateral vision of society, of the culture, the economy, in short, of everything that must be subject to training by the school, including life.

A school frequented by professors (and therefore students) lacking this multilateral vision, who lose their cultural and ideological calibre in the noblest sense of the term (i.e. with a conception of the world that is able to argue and nourish through teaching and training), ceases to be part of the society-culture-political dialectic and becomes repeater of models and structures (not only pedagogical-didactic but also existential and professional) and heterodefinite, dogmatic, functional.

In this way, however, most of the fundamentals that enable the school to perform that educational function both for the subject and the social one constantly recalls are diminishing. Indeed, the promotion of a training that is able to articulate and make the relationship between knowledge (linguistic, logical-mathematical, technical, interpretative, etc.) and feeling (emotional, empathetic,

moral, ethical, etc.) is the difficult result of communication between school and culture-society no less than reflection that the school itself operates with respect to its specific cultural and social function, and it is precisely from this self-reflexivity that the awareness of a 'relative autonomy' that it can evolve originates and imposes on it. authentic, one would also say responsible and aware, educational models.

But as Massimo Baldacci (2017; 2019) observes appropriately, this critical and metafunctional function of the school 'develops properly within the university' and is the root from which the school itself not only defines its identity but also the representation through which it can be recognized outside

However, the educational function - which, in our opinion, cannot pedagogically derogate from the principle of formativity and human generativity in an emancipatory and non-alienating direction - simply because the subsystem of the social system enters into a problematic relationship with the demands of other subsystems for which the idea of education and training can be punctually different and divergent. This is the case, for example, of what happens when the political vision abdicates its responsibilities to interpret the role of institutional alter ego of a capitalist-financial economic intention. Faced with these situations, the hopes of the pedagogic are mostly placed in the political antibodies consisting of the level of their own 'educational self-awareness' and, likewise, in their ability to activate a polemical dialogue within the hegemonic political apparatus.

This *polemos* does not seem to have been particularly vital and the long season of school reforms and counter-reforms has ended, in some ways, to make structural the inadequacy of knowledge and skills as the foundation of teacher professionalism. A flattened professionalism on a profile which is essentially asked to respond to the 'development of skills, cultural, social and human capital' having as its aim and judgment the ability to respond to the primarily economic challenges to be won at European level, before and, then, worldwide as well.

Therefore, at the geopolitical level, the model to say the least European in scope and focuses on the representation of contemporary civilization as a Knowledge Society. This is the representation chosen to pursue growth and development that has produced the related corollaries of Cultural, Human, Skills, Educational Innovation, Flexibility and Entrepreneurship. An ideality that, even if in different respects sustainable, has in fact been translated into a significant poverty of the population, in the opening of the gap between who has access to resources, opportunities, knowledge etc. and those who are excluded, in the contraction and loss of jobs, in the progressive erosion of the purchasing power of wages, in the supranist and nationalist sentiment, in the questioning of important social rights laboriously conquered with the introduction of the following social-democratic welfare to the second world war.

But 'perhaps' the moment was wrong and so it happened that the very long economic-financial crisis had 'perhaps' diverted the intentions of Lisbon and increased the request to the school to know/have to effectively respond to the demands of the business world: skills adapted to the world of work, getting used to mobility and change in order to be able/know how the future demand for professional flexibility, invest in procedural skills by removing the centrality than is necessary for their own promotion. A school which is required to 'train as required' and no more, in the shortest possible time, far not only from the ideal formation of 'protean minds' but also, more simply, thinking. Today, in fact, and outside of political and propagandistic rhetoric, the school is asked at most to train mainly executors.

The specific directionality described (from the political-economic to the low educational level) not only does not exploit the collaborative and dialectical

potential between social systems and subsystems but, skipping at the same time the possibility that the search for a 'reasonable consent' could offer, calls for sedimentation and rigidity of systems of incommunicability that prefer the logic of administrative transmission to the cultural and educational communication one which should, in the case of the school, involve the processing center of the pedagogical ideology (the university), the *ganglia* of the transmission of this ideology mediated by the demands of the politician and the subsystems that it interprets (the scholastic leadership), the daily militancy that plays a central role in the spread and imposition of an idea of education and life (the teaching).

It is not surprising then that among the functions university, management and teaching there is now a basic incommunicability or, better, a communication that often leads back to a continuous electoral campaign that tends to to respond depending on the case (of the emergency) functionally to the most sensitive component electively, even when favouring linearly the instances of such volatility can compromise the proper functioning of the entire educational-educational-training system.

Even this logic is the basis of a policy that seems somewhat bewildered in reformulating the ways of a difficult and complex professionalism 'in itself' to which is added, on the other hand, a pedagogical and didactic knowledge that it fails to break through its strictly specialized disciplinary boundary and, thus, become a praxis and educational common sense able to acquire voice and relief in the decision-making process of opinion leaders.

3. No solutions

It would probably be very risky and certainly presumptuous to pretend to propose simple solutions to complex problems and, therefore, we could not, even if we wanted to, present any 'cure'.

We could actually try to formulate a working hypothesis, pact to focus and try to work on what can be in contrast with this divisive logic of the relationships between the elements of the educational-educational system.

Starting from the university research-reflection, passing through formative communication and commitment to the territories, it is perhaps worth betting on the effectiveness that a teacher training that is massively invested by knowledge can have and competences able to act as a booster of the mobilizing and capacitative dynamics - democratically 'from the bottom' of the school and the world of education - the fields of politics.

Therefore, the university's commitment is based on the double track of training in knowledge (lectures, seminars) and the qualification of knowledge (laboratories, training) that, identified and formalized starting from the comparison with the world of educational militancy and educational and social training, can then be transformed into skills that the school knows and can be adopted and transformed into opportunities to take a stand and actively claim principles, values and recognition. In this sense, for example, to a culturally nourished formation that knows how to interpret the concept of democracy in 'reflexivity', 'empowerment', 'capacitation', 'dissent', 'criticism' etc. a training must be placed side by side and systematically integrated in order to direct the practices coherently with these objectives and in the direction of a general increase in political participation.

In this direction, the absolutely not innovative, but always important, educational actions that can be promoted in the spaces/times of the academy, are at least two:

- the care for a medium-term training for university students who aspire to enter the world of school that aims to ensure that the many and varied educational opportunities are oriented to develop professional identities nurtured theoretically and practically hermeneutical, critical apparatus and instruments, ethics;
- the care for a training in service necessarily short-term for teachers and educators that while responding to the increasingly insistent request of only operational instrumentality, at the same time be careful to activate awareness about the importance to reflect critically on one's own intellectual professionalism and on the tools that can be proposed to them.

In both cases it is a matter of promoting the awareness of the pedagogical-political role held and the necessary dialogue, confrontation and encounter that this role requires both activated in constructive polemic with society, contemporary culture and imaginaries mediate both explicitly and implicitly and, this, by investing in a formative approach that takes care of aspects that are both 'introflexed' and 'everted' in the teaching profession. Where:

- by 'introflexes' we mean the quality that resides in a coherent personal vision that is at the same time present to itself, not immune from criticism and revision but, precisely for this reason stronger and more articulated, equipped with respect to the blows that can come from the external and able to 're-unify' and narrate the I-world relationship that is contingently there
- by 'everted' we mean the quality linked to the ability to participate by taking the floor and establishing oneself as a dialoguing position, open to mediation where possible and, where impossible, knowing how to maintain and effectively argue the immobility in the face of unacceptable requests, thus knowing how to dialogue how to oppose, resist as conflict, resist as resilience.

It is evident that this action tends to move on the level of research-training, responding to the need to travel the ways of promoting an initial and in-service teacher training that develops a model of thought, responsibility and also of protagonism capable of developing and exercising professional reflexivity, methodological criticism, heuristic and dialogic posture and, also, didactic instrumentality.

The hope is that soon at the heart of the training can return a subject-person considered authentically based on his own specific complexity, responsibility, politicity. If this is the case, if tomorrow our students have become more aware and better able to argue their beliefs and critically support their choices, then we can perhaps put aside these considerations and the related actions that they are nourished and at the same time they nourish. And, as pedagogists, we will only be able to please have to limit ourselves to observing, without having anything else to add.

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Conscientization and Complexity as Keys to Understanding and Analyzing Contemporary Schools. Critical Issues and Conscientious Intakes

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Keywords: *Teacher Training, Citizenship, Complexity, Oppressed, Freedom*

Introduction

In 1984, Freire wrote of the importance of promoting reading as an act of societal liberation. In promoting its contrastive action, which started from the most disadvantaged social contexts, where work at the factory was necessary to survive in a capitalist context, at the expense of its own freedom. The steadily increasing disinterest in issues fundamental to the knowledge and development of human beings—together with the dissemination of electronic technologies in accordance with the principle of the internet and its creator—should theoretically promote a decrease in distance between people, while otherwise contributing to the increase in illiteracy. According to Freire, reading, and writing, in their specification of people as individuals and their singularities, represent true weapons for the liberation of the masses. The relationship between subjectivity and objectivity is labile, and educating professionals require targeted pedagogical interventions. Education is an occasion of liberation, a collective act able to awaken the society of silence and incite the noisy know. To know is part of a fundamental path in which the learning becomes the subject of growth, induced by the competence of the person able to act at the level of metacognitivity and complexity, as in Morin, Medina-Rivilla, Margiotta and Baldacci. Based on the research we analyzed, we felt the urge to expand, deepen and systematize – as suggested by De Giacinto (1977) – the scientific criteria and their applicability in many educational and training contexts. According to Boisvert (1999: 37), «[…] education in itself requires, per its definition, critical thinking. This implies that each individual be able to think critically about their beliefs, providing rational reasons which sustain and justify them. Additionally, they should be able to protect themselves from manipulations, safeguarding themselves from deceivers and exploiters». Morin (1993) has repeatedly invoked giving attention and value to complexity, without confusing it with completeness, so much so that since the 1950s, he has devoted several books to the subject, including *La complexité humaine* (Morin, Weinmann, 1994). According to Morin (1993), people then, as now, are unwitting victims of disjunctive thought, how thought reductionist simplifying variable. It is thus necessary to exit the vision conditioned at times due to blind intelligence. On other occasions, if it becomes the first real limit to understanding the context and therefore to knowledge, it hinders development and the ability to create cross-connections that are conscious and reasoned across multiple concepts.

1. Method

The methodology used in this contribution presupposes the analysis of the state of Italian primary and secondary schools. An element of evaluation and

understanding many teachers trained during the training courses and the activities conducted in various comprehensive institutes between Italy and Spain. Milestones of disquisition are the reflections stimulated by Baldacci regarding the valor system, which today distinguishes the revolutionary act of educating. The epistemological awareness has taken from the in-depth study of Freire and the Latin American context, including the Morinian reflections on the general intelligence of soliciting and stimulating doubt. The training has ceased to exist; the Deweyan practice of learning for errors is now, at its most extreme, the trivialization of learning without any foreknowledge or awareness. These assumptions are not required to represent those who today the ways of teaching are and learning but should instead be part of the first questions the teacher formulates to propose meaningful activities for development and growth, participation and learner same to a complex person. One of the limitations for us is characterized by complex reasoning, with excessive frequency reduced to a one-dimensional knowledge, while the key variable is the multidimensionality of the concept, of reasoning, of being. Between the different axioms that characterize the complexity, there is the impossibility of omniscience: we cannot know everything, but even you can become a simplistic conceptual simplification, assumed from definitions certain. It is therefore necessary to enhance and recognize the skills of each. The partiality of knowledge is what Morin (1993: 10) defines as the «theory and disease pathology of reason»; the difficulties are the product of conceptual shortcomings, influenced in turn by the environmental and social demands of the one-sidedness of knowledge. What we are proposing here is that, according to the different points of view on learning, the user, perhaps a teacher's student overcoming these categories, must keep in mind the status of the ongoing evolution in which we are responsible and active contributors. The Baumanian liquid environment in accordance with Chomskyan purpose and conception of life is an invitation to reflect; today's appearance is given by the frequent communication and lack of reality that we to believe we have with others. The mistake that we are making is to put ourselves in a state of passivity and the domain of a medium of communication, our relationships with others, especially on account of ourselves. We are not a product of context; conversely, space suffers and adapts to our requests. The message before Morinian and Freireian collects and stresses the synergy of knowledge, of relating and communicating.

1.1. The knowledge between ideas and experiences

For every person, the experience is the more direct source of knowledge, as in the exploration of the environment, which allows one to touch, feel, live and receive feelings from which moods are derived that contribute to defining the idea of reality. From feelings, to carry out a reflection on building a representation of a ‘concept’ environment becomes the location of choice for knowledge that starts with the external nature, to relate the subject to one’s own interiority. This choice is geared towards increased self-awareness; the perceptions and the effect produced by the latter on a more general way of being and living everyday life. Corporeal education is respectful of individual learning and development rhythms. Thus, it has multiple functions, because, on the one hand, it becomes a reflective attitude meta-premise that is acquired and perfected over time, starting with the acknowledgment of the surrounding reality, which is particularly sensitive and perceptive in its early years.

The child, in fact, lives his or her first encounters with the surrounding world through his or her sensory systems, which makes for very significant experiences that can leave traces in the memory, scoring important personal memories to the point of being declared particularly incisive for personal development.

Applying the words of Bateson (1979) and Bruner (1983) to emphasize the close link between learning, nature and experience, where there are hard work, curiosity and action on the part of the child, there will be no learning, sensory-motor or cognitive development process.

Taste, smell, touch, sight, and hearing all enable the individual to explore and inhabit the world, which captures the real status of citizenship, based on the exercise of belonging that comes from sharing and the ordinary. It is no coincidence, then, that ministerial documents about kindergarten and the first education cycle, as proposed by the Italian Ministry of Education in 2012, made explicit reference to 'experience' with the noting of achievements that give considerable emphasis to physicality and movement, perception and feel, and operational manuals and activities (doing) to promote the capacity to reflect on the experience (thinking) following the initial exploration and observation.

1.2. Make and create: educational perspectives

Action and sentiment on how to perceive and think are not, however, completely disjointed, although the experiential dimension is the natural start in the operation. In this context, the pedagogical literature is generous with stimuli and ideas, because it offers multiple opportunities for reflection with the revolutionary methods that have allowed the original adventures of pedagogical knowledge, both in terms of its theoretical-conceptual and practical implications. An integral vision of children and adults has contributed to the definition of a multifaceted training model of the person to be protected with a painstaking program of education, which attests to the 'passion' and interest in the human demonstrated by pedagogy and the educational sciences. Pedagogical knowledge has indeed been nurtured by this person, whose abiding love has no cure and thus needs care and consideration in recognition of his or her personal and social values. This, however, meant that pedagogical research has had a problematic nature, in that it has become constitutive and methodological. The philosophy of education in particular highlights the critical attitude-problematic towards reality and knowledge education (theories and problems) that has earned this discipline a regulatory function and is constitutive of the pedagogical, for which you can define its center of gravity. In this context, reflexivity and intentionality have become constants of thought in education: the critical and proactive mode about a thought understood as content that offers.

The last century, marked by the need for renewal in schools and pedagogy, has expressed very clear social tensions and its need for a culture which has been offered new answers, value choices per the adopted person, singular experiences suggested by activism, an educational movement. The enhancement of this became a concrete opportunity for growth, able to manually modify the same class life and the learning environment, in the knowledge that you can start operational, or not human knowledge. What follows is a path in search of the «intelligence of things». In the 17th century, Comenius mentioned that the intelligence of things is worth far more than words, phrases, sentences or opinions collected by authors. The mind of a student must «sprout from its roots». This statement is rather explicit: it is an invitation to teachers to strive to naturally promote the cultural development of the human personality, which must have the time and opportunities to be trained and grow in autonomy and intellectual freedom. You cannot, nor should you be, taught to look with the eyes of others, but to hear, see and feel with your own senses, to allow you to go beyond actual visibility (phenomenal) and grasp the reason, one that on the pages of Pansophy, dedicated by Comenius teachers, becomes responsive and an instrument of universal harmony and perpetual truth.

2. Problems and variables: the person

Consistency and uniformity, corresponding to the pansophic thought method, represent the author's methodological pillars for teaching and learning knowledge that reflect the connection of objects and words, expressed through the concepts. If knowledge corresponds to activity, Comenius adds, babies will learn only what they have experienced, hence the significant value of the direct perception of the ideas that teaches and gives, more than the many concepts learned by heart. Exercises, experiments, theatre and handwork may confer vigor, vitality and interest in learning that reveal the human soul's natural instinct for the truth. In fact, the power to know is an expression of a human desire; according to Aristotle, it is a desire that satisfies the instinct to live and learn. Interests, motivations, desires, and the needs of life and culture govern the formation, in order to make possible, through education thought and conscience, the ideal transfiguration of reality by the subject so that, in this way, it can become the protagonist of an invasion into the unknown and a foray into the future. Curiosity, passion, enthusiasm, sensitivity and awe make known a process, a product, and a motivating and effective incentive to increase the real learning. The desire to push the boundaries of knowledge 'possessed' is declarative knowledge, procedural and conditional articulation that represents the expansion of knowledge that starts with a description of reality, with facts and phenomena, to become a question of method and regulatory conditions in the building up of knowledge. The natural development of this process leads to the exploration of 'facts of consciousness', or of those states that make the subject more aware of certain phenomena. The 'easy issues' of consciousness, to Chalmers, are those which can be explained by cognitive science with the use of neural or computational tasks. Performing any discrimination and categorization as a response to external stresses, therefore, integrates environmental knowledge and information, as well as access to cognitive systems through inner states, such as intentional mental states.

Conclusions

The research into critical and complex knowledge begins because this path in knowing traces its way for stimulating interest and curiosity and cannot sacrifice needed answers. In adulthood, the request for explanations leads a person to contend with a complex reality. This is due to the coexistence of multiple factors related to causes that are not always easily identified, precisely because of the simultaneity of events, links, causes, effects and their tight correlations. There are issues that by their nature are unclear, create inconvenience and become problematic, and are then reflected in social relations and cultural and professional experience of the subject. Complex problems, as per Morin (2012), occur in all their variety and vagueness, resolvable only with a desirable reform of minds. The difficulty in which the man lives in another modernity for Paul Watzlawick was due to its «world image», built in response to «the way things are and how, in his image in the world, should be» (Watzlawick, 2004: 45). The likely difference, derived from the actual incommunicative conditions, is to generate a problematic conflict that arises from a series of experiences, multiple interpretations, fragments of experiences and knowledge, models and individual and collective decisions. It can be understood as a plurality of factors and unresolved issues; waiting for an explanation could thus make up the definition of complex situations. The complexity is due to the variety and combination of a

myriad of phenomena and experiences: presents, sleeping, and different shapes, even the sensitivity and intelligence of the child. Every natural event, in its 'apparent' simplicity, is so strong as to produce magic and wonder, components that Aristotle indicated in his analysis of exploration and philosophical man. Supreme knowledge, to the philosopher, he added, 'is contemplating why' to explain the principles underlying such a fact to the phenomenon, to be aware of the causes and the necessary. It is one thing, however, to know this (so what manifests itself) and another to understand why on the causes and the same principles. What is contingent and cannot be given science, claimed Aristotle, being worth ascertainment in that case. Rule and reason do not always prove sufficient to explain case quotas, attributable in Aristotle to concomitant, incidental facts. Perhaps it is the difficulty of tracing universal and necessary causes that most worries the man of «liquid modernity», which incorporates ideological and cultural effects of the clash between theories and facts, leading to progress, changes in science and social transformations. The strength of intellectual conscience, able to support contradictions, has faded over time, leaving man devoid of certainties, destructive towards the past and tradition, a victim as he yearns for liberation. A passive attitude and declared resignation before facts and events of an even more tragic history, seem to be fairly widespread at present, a flimsy answer (that is, in fact, unable to solve the most complex issues) to the great problems of existence that beset and heavily condition the man of late modernity. Tradition has perpetuated, resulting in obsolete competencies, prejudice, ignorance and fear, not the promise of better expectations for humanity in the 21st century; culture and knowledge, meanwhile, still can and must elicit great desires and passions, with vast problems to awaken sleeping spirits, idle minds, thoughts and feelings.

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The Skill-Oriented Approach in Teacher Training

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Keywords: *Skills; Competences; Teacher training; Models formation*

Introduction

Teacher training is a very relevant matter in education, and it represents a problem at an institutional level both in Italy and in Europe. The debate regarding skill development has highlighted many difficulties in their application, but it led to change and mainly to a critical analysis approach since it has introduced some new elements such as attention to knowledge, skills and critical and metacognitive thinking of them (Baldacci, 2010).

The focus of this contribution is to examine a model to develop some competences to use those valid aspects and components to train teachers. The hypothesis here presented investigates the possibility to introduce these components inside teacher training curricula for those teachers who are starting their training as well as for those who are already teaching, to enrich the quality of their professional practice.

1. Teacher training

We certainly have different strategies to develop teacher training and some of these use an approach of integrated forms of action and professional development implementing specific curricula of practice and research in order to educate in the different contexts and alternating them to articulate a teacher 's training during his or her academic career. Particular attention is given to training-research fellowships and in this perspective the teacher, following into Dewey's footsteps (Dewey, 1929) acts as a teacher researcher. The definition of the research problem is the outcome of a process of analysis and intellectualization of this situation and it lies in issues which determine how the research is set (asking yourself some questions, evaluating them and finding the fertile ones, considering that there are some fake problems, and eliminating unnecessary questions) and in strategic reflexive thinking, which will allow teachers to rethink about their own work and to learn from their own personal experience. How can we develop a teacher's competence? A teacher develops an attitude to investigate, a research method, and he becomes an active, critical and antidogmatic professional towards teaching. He is able to question his own practice and to critically rethink of it, to learn in an intelligent and ongoing way from his own professional experience. Which opportunities of self-reflection do we have from the competence approach in teacher training?

2. The competence approach

Competence is a complex construct that is characterized by dynamics and different factors. A competence is reached in the process through which the resources available are in relation to a specific concrete context and it comes out from the non-linear interaction of the underlying factors as a form of the Gesthalt which will not surrender to these factors. Competence will manifest

itself at an external level: a visible performance, but it cannot be considered as a single performance (neither a collection of selected nor specific performances); competence can generate an indefinite number of unpredictable performances in a specific context. It has an internal dimension that is widely articulated and that incorporates a declarative knowledge (what the subject knows), a procedural knowledge (what the subject can do with his knowledge), meta-cognitive attitudes (the competent subject does not only know how to act and what to perform, but is also able to explain the reason behind it). Beyond a cognitive dimension we cannot forget emotional components together with those components that belong to the sphere of affection, a dimension related to relationships and motivation, habits and dispositions (Fioretti, 2010).

This construct faces many different critical issues which raise some interesting discussions. First of all, the definition itself of competence. In OCDE reports, skills and competences are used as synonyms like an ability that is considered common ground to both skills and competences. This semantic confusion is due to the intersecting elements that lie in the common grounds of the basic meaning of the three words, but convey lots of ambiguity. Second we have to acknowledge that on an international level many different skills are compared (key skills, life skills, hard skills, cognitive skills, job/professional skills, soft skills, no-cognitive skills, socio-emotional skills, character skills…) which generate lists that are only apparently complete and exhaustive. Third competence assessment is not an easy task. As far as the latter we cannot simply rely on traditional models and forms of assessment, but to certify that a skill has been targeted thanks to the execution of some authentic, challenging and complex problem-solving contexts. It is necessary to use some informal and qualitative methods such as observation, self-assessment and rubrics. A definite tract of the construct of skills is represented by the attitudes and dispositions (emotional, motivational, metacognitive and those belonging to the sphere of relationships….) together with knowledge and competences that are present in the Framework of Recommendations by the European Board dated 2018. School teachers are subjected to those guidelines related to transmissive/reproductive didactics. The concept of competence is defined as a combination of 'knowledge, skills and attitudes', in which the attitude is '[…] the disposition and mind-sets to act or react to ideas, persons or situations' (Council Recommendation of the European Union, 2018). The skills are present in school documents, but they still seem very far from an actual practice (Benadusi, Molina, 2018).

In this context, for the realization of a skill-oriented approach, teacher training plays a 'strategic role' in the space of complex and articulated professional skills, oriented towards a true renewal of the teaching approach. Traditional educational approaches, characterized by abstract and decontextualized knowledge, are separated from the concrete and intuitive experience of the subjects acting in a precise situation. The contemporary constructivist proposal places the subject at the center, as a priority, together with the contexts of action. An individual is a whole agent, he is «person-acting-in-setting» in a complex field of interactions, engaged in the construction of his own knowledge (Lave, 1988: 190).

The development of a professional identity based on a solid competence is based on a constructive dialogue between different kinds of resources, belonging to different levels (conceptual 'knowledge' - the relationship with the teaching disciplines-, 'procedural' abilities - the relationship with the learning processes-) and articulated at different times in the construction of the 'attitudes' (the teacher is first involved in the planning of the educational action, then in the coordination of the situation, finally he applies what he realized in this situation in other contexts) (Benadusi et al., 2019).

An expert is that teacher who combines all the components, all the conceptual knowledge behind it: 'knowledge'; 'skills', 'know-how'; 'attitudes' and 'critical thinking'. In the prospective studies of cognition and metacognition becoming an expert means, indeed, not only having some knowledge but having a highly

specialized knowledge which implies to be able to use both of them in a flexible way, to learn to observe, control, evaluate and correct your own performance; learning to use the time available and understanding the results to realistically evaluate opportunities and limits for improvements.

Cognition, connatural to the approach by competences, is placing at the center of a complex system, a subject in a situation that interacts in a dialectical relationship, through his actions, with all the elements of the situation and the context, who definitively moves away from the codified and decontextualized knowledge, in favor of a critical and strategic approach aimed at solving educational situations and problems. Therefore, to promote a qualified attitude and to facilitate the integration of the processes of acquisition of the professionalism of teachers through the effective resolution of educational problems, it is necessary to put in place several levels and aspects and organize them on several moments based on a critical and heuristic reflection through a skill-oriented approach.

3. A model for skill development

The aim of this paper is to identify and experiment with a vocational training method where you can perform your own professional practice in an investigative way. In particular, to activate experiences related to the formation and development of competent attitudes that lead to seeing teaching as an action to solve educational problems to be faced with complex and multiple research methods. It consists of a recursive process, in which to ask questions, formulate hypotheses of work, prefigure the consequences, experience them, reflecting on the results and returning to ask new questions by integrating different levels and moments in a continuous way.

In a context of a continuous deep interconnection of factors as motivation, learning, critical thinking, knowledge and reflexive metacognition a possible approach is the use of a model elaborated by Robert Sternberg (2005). He is well known for the triarchic theory of intelligence. According to his theory every intelligence has three different dimensions: analytical (the competence to assess, analyze and compare); creative (to unveil, produce, imagine and foresee); and a practical one (to organize, use tools, put into action projects and plans with concrete goals).

In this model intelligence, with its three dimensions, represents a set of developing skills which, in turns, depict a developing level of expertise. This model is perceived as a privileged area to refer to for a long developing continuum. The meaning of ‘developing skill’ lies in the process of acquisition and consolidation of a set of abilities that are necessary for a high level of mastery in one or more domains of life performance. A subject is ‘competent’ when he has developed high level skills.

In this model Sternberg investigates the ways and interactions with which skills, competence and expertise, in particular, are located along a continuum and the subject undergoes a continuous process of development of expertise when in a specific context. In other words, what we want to highlight is that the teacher acquires a wider range of skills and higher efficiency in applying them thanks to this ongoing process while training and teaching.

The expertise development model has five key elements: metacognitive competences, learning competences, intelligence competences, knowledge and motivation competences. These competences are interactive and influence each other directly and indirectly. According to Sternberg, for example, knowledge comes from learning and knowledge helps the learning process and critical and creative thinking.

Metacognitive skills refer to being able to control and understand your own cognition. As far as a teacher it regards the procedural structure of a

competence and its executive criteria. A significant element in metacognitive knowledge refers to the strategies used to execute some tasks and for problem-solving. These strategies refer to some operation aspects and are defined in some mental paths and operation procedures through which a subject can use its cognitive resources (concept and procedure knowledge) as ways to reach their goals regarding a specific context. Some strategies related to teaching competences are: the acknowledgement of a problem, its description and representation; framing a strategy, locating a resource, monitoring a solution and assessing the solution. Meta cognitive knowledge is about the ability to monitor the execution of a task and to apply the necessary corrections and adjustments.

(1) Learning skills (those components regarding knowledge-led acquisition) can be explicit when there is an effort in wanting to learn something (for example specific training sessions for different areas or online teacher platforms). They can also be implicit when, in due course, we collect pertinent information without being too systematic. Examples of learning skills that are useful for a teacher 's professional conduct are: selective coding, meaning being able to distinguish between relevant and irrelevant information; a selective combination, which implies combining relevant information; a selective comparison, relating new information to the ones already retained.

(2) Intelligence skills are necessary to go from mind to action, to translate an educational intention into a concrete path that can be executed in education. These skills are highly articulated, and it is possible to identify some peculiarities within them. Critical or analytical skills refer to analysis, critical thinking, judgment, assessment, comparison and contraposition and scrutiny; creative skills instead are about creative thinking, the identification, invention, imagination, supposition and supposition and the ability to formulate some hypothesis. Practical ones include its application, use and practice.

Two are the skills related to knowledge in educational settings: (3) a declarative knowledge, related to facts, concepts, principles and laws, that is 'knowing that'; and (4) a procedural knowledge (regarding procedures and strategies) and that 'knowing how'. Implicit procedural knowledge is particularly important, that is about knowing how the system you are operating in works.

Even (5) motivation represents a complex construct and it is possible to distinguish between goal-oriented motivation and self-efficacy motivation. Those people who present a high goal-oriented motivation are always searching for moderate risk and challenges, they are attracted to tasks that are not particularly engaging and want to improve their outcomes. A sense of self-efficacy responds to a motivation skill that is typical of those people who are convinced that they have an ability to solve the problems they are facing. People who reach an expertise level in their field of competence are highly self-efficient and this is the result of intrinsic and extrinsic rewards. Teachers rarely show high levels of self-efficacy and specific training which could increment these aspects related to personal rewards, the acknowledgement of its professional role as a teacher from those who benefit from it like the parents of the students, and grants could be used to integrate the already existent training courses.

These five elements interact in a context in a recurrent and circular way allowing a beginner to move towards competence and the expertise through intentional practice. Motivation guides cognitive skills that activate learning and cognitive skills which will then offer a feedback to metacognitive skills allowing the expertise level to increase. All these processes are influenced by and can influence themselves the context they operate in.

Conclusions

The competence construct and the related expert behavior seem to be the direct but not immediate result of the movement of declarative, procedural and

contextual knowledge that is filtered from real situations and as being real they are indefinite and irregular, modeled on specific and particular contexts. The concept of competence can be interpreted as a complex, 'cherished' and 're-fined' outcome as a summary of it, fruit of numerous, recurrent and circular lev-els of mediation and following adjustments that are contingent to the various theoretical and practical components, the metacognitive and cognitive aspects, motivation, learning and knowledge. Teacher trainings, that apply the compo-nents of Sternberg model, could lead the teacher to operate at a high level of expertise in accord with the context through a series of diversified and original procedures that do not simply apply the knowledge and procedures already known. These recurrent processes respond to a set of skills that have in com-mon the perception of the context and the attitude to transform knowledge in decisions and actions through the interpretation of knowledge, sometimes with a delicate interpretation of it, and the intentional search of solutions as a 'tailor made' response to the educational problems experienced. These processes correspond to expert behavior characterized by precision and a fast response, alertness in depicting the context and the supply of coherent and efficient an-swers able to innovate the quality of teacher professionalism.

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Rethinking Intercultural Education for a Democratic School. Reflections on an Empirical Research Project

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Keywords: *Intercultural education, Teacher training, Social justice, Democracy*

Introduction

Within the current debate about the new and old challenges that pedagogy is facing, especially with reference to the development of a society that can effectively be called democratic and equal, the issue of teacher training is particularly important. Reflecting on this involves understanding the current relationship between school, democracy and society, which Dewey deals with, (1964), with a focus on new and increasingly rapid social, cultural, economic and environmental changes in a global perspective. In particular, schools are undergoing important changes, as far as both students and teachers are concerned. Pedagogical studies have the responsibility to reflect on the potential dangers of scholastic methodologies, instruments and purposes, which are ever more influenced by the neoliberal framework and capitalism (Nussbaum, 2011; Baldacci, 2014; Dusi, Portera, 2016). The democratic principles are in danger, because neoliberal policies reproduce inequalities among schools, teachers and students within the education system.

In Italy teacher training is becoming increasingly uncertain, because regulations are changing all the time, along with training. At the same time teachers have to face many challenges, including being able to guarantee equal opportunities to all students, creating the conditions which help to reduce performance disadvantages and managing the education system in this complex age with a particular focus on diversity (EU, 2017). Interculturalism is therefore an important tool to understand the current Italian context, in order to react to migration issues and develop a cosmopolitan citizenship (Nussbaum, 1999; Morin, 2000).

1. Why rethink intercultural education?

In Italy there are 5.065.000 million legal immigrants (ISTAT, 2018), who account for 8.4% of the resident population, not to mention illegal foreigners undocumented, refugees and asylum seekers[4]. According to MIUR (2019) data, the number of students from migrant backgrounds has increased, with a growth of almost 16 thousand students with non-Italian citizenship (+ 1.9%), bringing their incidence on the total from 9.4 to 9.7%. They come from more than 200 countries of origin, and there are 729 schools in which students without Italian citizenship represent the majority (exceeding 50% of the total of attending students). Nevertheless, it is important to stress that 63% of them were born in Italy.

[4] No accurate data are available for these categories. See also: https://www.unhcr.org/statistics/unhcrstats/5d08d7ee7/unhcr-global-trends-2018.html

We can therefore talk about a multicultural Italian school which represents a patchwork of origins with different cultural, linguistic and religious backgrounds. For this reason, the Italian school system has chosen intercultural education as an approach to promote diversity and dialogue between people. «Intercultural education is, above all, an approach open to all differences (of origin, gender, social class, sexual, political, linguistic, cultural and religious orientation) which aims to enhance diversity within the horizon of the democratic perspective defined by the values and principles of the constitution of the Italian Republic. Intercultural education is not a particular type of special education for foreigners, nor to be implemented only in the presence of foreigners, but is addressed to all and, on the contrary, works so that no human being is excluded and / or should feel foreign»(Fiorucci et al, 2017:617). This approach is present in many national and international institutional documents (MIUR 2007, 2015; European Council 2008, European Commission, 2017), and many authors consider it to be a very effective way to face important changes in the world (Susi, 1999; Gundara, 2000; Portera, 2013). Intercultural education is a dynamic and complex concept, which is often confused when put into practice; we must be careful when we attempt to understand how interculturalism works. This approach should «be political because […] intercultural education cannot be translated into a neutral practice, but instead requires a precise choice of field» (Catarci, 2018: 65). This approach entails a real transformation of educational tools in order to fight oppression, exclusion and marginalization in accordance with social justice education (Tarozzi, 2015). Nowadays there are still many forms of disadvantages, in particular for students from migrant backgrounds (OECD, 2016; MIUR, 2019) and intercultural education risks being an empty concept, full of rhetorical words and isolated practices (Granata, 2019). For this reason the time has come to rethink intercultural education as an approach that carries out the principles of democracy, cultural opennness and social justice.

1.1. A challenge to take up: teacher training

The quality of an educational system depends above all on teachers and teacher training (Scheerens, 2010) and reflecting on intercultural teacher training can be the key to achieving real intercultural education in schools. Teachers need to have coherent training in order to develop the proper skills and tools to face complexity and diversity in the schools (Miur, 2015). «A comprehensive system of teacher education is crucial to equip teachers with the intercultural competences necessary to respond to and manage the evolving diverse school environment» (European Commission, 2017: 26). But what do we mean when we talk about intercultural competences?

There are many different proposals about which intercultural skills to develop within the national and international pedagogical debate (Desinan, 2003; Ouellet, 2007; Fondazione Cariplo, Bertelsmann Stiftung, 2008; Fiorucci, 2011; European Commission, 2017); in this paper we shall only consider a few of them. Ouellet's contribution (2007) suggests that a focus on equality and a broader knowledge of the international social, political and economic situation are crucial for intercultural training. It should be organized through the development of specific competences (e.g. intercultural communication, deconstructing stereotypes, mediation) and the knowledge of some general elements (cultural anthropology, sociology of migration, language). In addition, Tarozzi (2015) identifies an important change in the development of intercultural teacher training within the social justice education framework. He talks about the development of an intercultural ethos among teachers which leads them to consider teaching as a transformative practice, and to think of teachers as transformative intellectuals (Giroux, 1988). According to this perspective, education becomes an ethical and

political issue, and teachers develop a greater awareness of their own role. Intercultural teacher training should therefore help teachers to better understand and share by means of common practices the idea of interculturalism, in order to create a real path towards intercultural education.

2. An asystematic model: the empirical research

The first intercultural education legislation dates back to the 1990s and from that period on there have been many regulations and experiences regarding this approach. Nevertheless, some authors talk about an asystematic intercultural model. Intercultural education has been carried out in different ways in the various areas of Italy; its meaning is quite confused and there are many inconsistencies between theory and practice (Tarozzi, 2006; Favaro 2016).

Why has intercultural education struggles to become a new paradigm of the whole Italian school system? In order to answer this question, we have developed two hypotheses: the first one identifies an intercultural teacher training which is not shared among teachers and headteachers (Alleman-Ghionda 2008). The second one, which we are not dealing with in the present study, is related to the lack of a shared idea of intercultural education in schools, academies and institutions. In this article we intend to present some initial data which show some characteristics of intercultural teacher training, with teachers' observations.

2.1. Method and tools

In order to better examine the issue, we used a mixed method approach (qualitative and quantitative). «[…] Mixed method research is, generally speaking, an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research)» (Jonson et al, 2007: 113). The instruments used were: a web-survey, interviews and a focus group involving teachers and headteachers who participated in the national intercultural training in 23 Italian universities. The sample consisted of 712 teachers and headteachers who work in schools with a high number of students from a migrant background. The average age is 48 years and females (87.6%) overwhelmingly outnumber males (12.4%).

2.2. *Data*

A first analysis of the closed questionnaire on the type of intercultural teacher training received shows that the absolute value (506) of experience-based training is high, while the figures for the other types of teacher training (specific courses and university training) are much lower. 93 cases declared that they had never received any intercultural teacher training; this response option is interesting especially because the respondents work in close contact with students from migrant backgrounds. In addition, as far as specific courses of intercultural education are concerned, there is great heterogeneity between the providers and the topics which are dealt with. Private social providers represent the body that mainly deals with specific intercultural training and three topics in particular are treated: L2 Italian language courses, intercultural activities and the reception and integration of foreign students.

By considering the potential relationships between intercultural teacher training and intercultural practices in schools, further reflections are possible. An additional index of intercultural practices was created to study intercultural

practices in schools. Each answer option was assigned a specific score: the more intercultural the practice, the higher the score.

Data in Table 1 and Table 2 prove the existence of relationships between, respectively, intercultural experience-based training and intercultural practices in schools, and intercultural specific courses and intercultural practices in schools.

TABLE 1. *Experience-based training and intercultural practice index (ANOVA)*

Intercultural practice index			
Experience-based training	Media	N	Deviazione std.
Yes	6,5255	451	3,862773
No	4,50562	178	3,919021
Total	5,9539	629	3,981178

P= .000

TABLE. 2. *Specific intercultural training and intercultural practice index (ANOVA*

Intercultural practice index			
Experience-based training	Media	N	Deviazione std.
Yes	7,51837	245	4,04846
No	4,95573	384	3,603105
Total	5,9539	629	3,981178

P= .000

Finally, if we relate the ideas regarding? intercultural education expressed by teachers and headteachers to intercultural teacher training, we can observe that only interculturally specific courses have a significant relationship with the correct idea of intercultural education (Table 3). In the closed questionnaire there is a variable regarding teachers' and headteachers' ideas of intercultural education. There are three answer options: two of them are only partially correct, because their conceptions of interculture contain controversial developments. One of the options contains the most correct idea of intercultural education; the following is the English translation of its text: 'intercultural education aims to define opportunities for interaction (*spazi di incontro*) between foreign and native students by rethinking learning contents and opposing (*contrasto*) stereotypes and prejudices. The school should support the enhancement of the languages and cultures it contains'.

TABLE. 3. *Specific intercultural training and e intercultural conceptions*

Intercultural education conceptions					
		L2	Folklore	Intercultura	Total
Specific intercultural training	Yes	27,3	31,7	44,2	39,1
	No	72,7	68,3	55,8	60,9
Total		100	100	100	100

P= .002

Let us turn to a brief analysis of the focus groups. We can examine in depth teachers' and headteachers' feelings and opinions about intercultural teacher training. Here is a partial list of issues the analysis raised:

- Need for teachers training on intercutural skills.
- Need for more experiential training and less theory.

- State of confusion due to the excessive number of policies and governments.
- Awareness of the social and political role of teachers.
- Loneliness of teachers: absence of shared values.

Conclusions and considerations

The literature reviewed and the above analysis suggest some reflections on intercultural teacher training issues. Nowadays plurality is an important value within education and training, in particular against the extreme homogenisation of opinions and ideas. At the same time, it is important to share common values on the idea of school and the purposes of education (Baldacci, 2014) in order to create real conditions of equity and produce competent teachers. Nevertheless, the data show extreme confusion with regard to intercultural teaching and to the idea of school among teachers and headteachers. All of this suggests that we badly need to develop better intercultural teacher training and a shared ethos within the school system. The lack of influence of common values on teaching could increase inequalities by reinforcing injustice and poverty. These become discriminating factors which distinguish an inclusive, democratic and open school from a segregating, unfair and closed one. Moreover, data show how teacher training is fundamental to develop a correct idea of intercultural education; experience-based training is important, but it is not enough. Our impression is that the first, incomplete set of data confirms the initial hypothesis of the study and encourages us to further our research in order to understand the phenomenon and give a personal contribution to the national and international pedagogical debate.

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Educating Thought. The Theory and Praxis Relationship within the Paradigm of Professional Reflectiveness

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Keywords: *Reflective Thinking, Active Participation, Community of Thought*

Introduction

This paper deals with the theme of how to train professionals to develop reflective thinking as they are called upon to respond to the swirling complexity of our times. The awareness of the multiple related antidemocratic drifts emphasizes the need for people to be well equipped to interpret and give meaning to their own experiences, elaborating situations in a critical and original manner while, at the same time, imagining broader horizons to move towards. In this sense, training must enable professionals to continuously animate the tension between theory and practice, creating the conditions for the exercise of the best form of thought.

As far as teachers are concerned, this assumes a dual value, both in the sense that it is of value to all adults engaged in a profession, and in the sense of being more specifically geared to educating the younger generations to develop reflective thinking. In this respect, the initial, as well as, the ongoing formation of teachers cannot be but reflective, in that it involves a critical evaluation of both the content, process and premises of one's actions (Mezirow, 1991). This type of critical evaluation focuses precisely on the relationship between theory and practice. In other words, in interpreting situations that are increasingly new and contradictory, the teacher is called upon to transcend them in a reflective manner, referring them to both theoretical and teleological premises. As a result, educating to active participation means that every action can only be understood as a tangible structure of our thinking (Mounier, 1934).

The creation of a Community of Thought - a synthesis of the conditions of reflective thought - makes the transformative learning of the participants possible, making them the protagonists of their own development towards the original and creative exercise of professional action, in view of an education for active and autonomous citizens. In this perspective, this paper develops three aspects, in detail: *i*) the theoretical reference horizon; *ii*) the conditions for reflective thinking, with special regard to the Community of Thought; *iii*) the creation of a reflective system.

1. The theoretical reference horizon

We believe that talking about education and formation means referring to and constantly relocating these constructs in their overall framework. In short, we can understand them within a conceptual and meaning horizon that regards formation mainly as preparation, training and information, according to what Schön (1993) has already defined as the Model of technical rationality. On the opposite side is the idea of training as the development of the individual as a whole, in an emancipatory and transformative logic of the subject who acts within a professional context.

The choice of placement in one of these courts calls into question the more or less democratic option of training seen as a tool whose aim is to meet the objectives of the marketplace which requires people to possess the ever changing skills sought by a constantly evolving labour market. The logic of human capital, for example, is to be found within this framework.

On the opposite side, training can be conceived as an essential instrument to achieve the active participation of all mature people (therefore the whole person) in the formation of the values that regulate the life of associated men (Dewey, 1933). In this sense, formation (education, in Dewey's language), as a goal and not as a means, is the essence of democracy, its essential cardinal element. By fostering the human development of the individual as whole and of all people, education makes it in fact possible for all to participate actively and constructively in a democratic society.

The idea of reflective thinking in the professional field is dependent on which reference horizon is chosen. By expressly referring to Dewey's cardinal conception, Schön and Mezirow formulate the idea of a professional reflectiveness that cannot be merely confined to the regulatory dimension of the action, but is rather to be seen as a rare, deeper level of reflection on the premises and on the models implicit in acting. From this point of view, the action drives the thought in the direction of the theories that are implicit in one's own actions, being, for this very reason, of great importance to both immediate and long-term choices. We recall, in particular, that Schön articulates such levels as reflection-in-action, reflection-on-action and reflection-on-reflection-in-action:

> I have shown that some professionals have the ability to reflect in the course of action on their own structures and theories of action. I have also noted the restraints arising from reflection in the course of action due to the behavioural realities and organizational learning systems that individuals are prepared to create. I have argued that, in order to enhance and deepen their reflection ability in the course of action, professionals need to disclose and re-structure the theories of intrapersonal action they employ in their professional activities. (Schön, 1987, p. 354).

The emphasis on the widespread use of the first two levels of reflection among professional people goes hand in hand with the limitations that have surfaced. These shortcomings may be attributed to the logic of operational efficiency and effectiveness that, albeit necessary, fails to be sufficiently broad and deep for actions to move beyond such criteria and progress towards creativity and originality. All this is regarded as a correlation to the formation of the values that rule the lives of associated men, to which Dewey refers. In order for this step forward to be made, stresses Schön (1983), professionals must reveal and restructure the theories implicit in their actions, that is to say, in Mezirow's words, it is necessary for reflection to encompass not only the content or the process, but the very premises of action. In this sense, the transformation of the perspectives of meaning that Mezirow considers the authentic outcome of reflective thought – which becomes transformative learning when the inadequacy of previous conceptions transpires - will become possible.

In this sense, Schön's and Mezirow's positions seem close to that idea of 'profound reorganization of the self' which coincides with Bateson's learning, which considers the highest type of change to be a very rare event indeed, given the stubborn nature of the *formae mentis*, that is to say, the implicit premises of action, learned on a second level by people over the long term.

In summary, Schön, Mezirow and Bateson himself converge in considering reflective thought as a process articulated in different logical levels, entrusting to the one of the highest order the possible attainment of the highest level of

thought, resulting into a real change of the beliefs and assumptions that underlie the manner in which we operate. At the same time, the authors considered here all agree in observing the intrinsic difficulty of this passage, in the face of a general tendency to stop at the first levels, which suffice to provide the agent engaged in the action with the means needed to regulate his or her action to ensure effective and efficient results.

2. The conditions of reflective thinking

The difficulty pointed out by the authors referred to herein, as we shall see later, confirmed by our empirical research, prompts us to investigate the conditions that, on the contrary, facilitate the best form of thought, according to Dewey's expression. We use the term *conditions* here starting from its etymological meaning (from *condicere*, to agree, to be in line with) to indicate the overall contexts that help create the highest form of reflection, highlighting its importance, on account of it being in agreement with the specific dynamics of thought.

We call such conditions: reflective conversation with the materials of the situation, emancipatory mirroring, community of thought. The first two conditions respond to the need to bring out, criticize, restructure and verify the insights linked to what one experiences in the course of action. The first condition expresses the intrapersonal character of this process, the second calls into question its impartiality. In short, it is a sort of dialogue, first predominantly internal – within oneself - then external – outside self, opening up to the exterior through the conscious use of mirrors on the objects one is dealing with, to interpret their meanings and effectively regulate one's own action. Altogether, it is the exercise of the subtle art of restructuring (Watzlawick et al., 1974) which allows one to redefine one's mental images in view of change. The adjective used for the second condition – emancipatory – is deliberately chosen to indicate the transformative purpose, the process of personal liberation from the way one is used to seeing and thinking things, often in an unconscious manner.

We have dealt with the conditions of reflective thought, both in reference to initial training and in-service training for teachers (Michelini, 2013; 2016a), also in an attempt to develop and experiment models consistent with the transformative concept we have referred to. The hypothesis of the Community of Thought (henceforth *CdPe*), proposed by us (Michelini, 2013; 2016a) and tested in the research paper *The reflective teacher*, in particular, constitutes a possible translation of the democratic and participative driving force of every educational process, which nonetheless requires forms and devices capable of enhancing its dynamics and of giving it an institutional structure.

Let us consider the *CdPe* as the number one condition of all the conditions for reflective thinking. With this construct, we mean a community that is being purposefully set up to place the thinking about the practices' components at the very heart of its mission. In this sense, it represents the context in which reflective conversation and emancipative reflection are achieved in a systematic and full form, bringing the first two to synthesis, so as to enable reflection itself to attain the highest possible levels of quality and characteristics. The *CdPe* is the place where the subjects interact with one another, communicate, compare, reflect, mirror, judge and imagine, creating new thoughts. In this environment, all thoughts cohabit, recall, exchange, and evolve.

The hypothesis of *CdPe* responds to the tradition of militant pedagogy, underlining the democratic character of the promotion of man and of the citizen, in contributing to freeing him from all forms of poverty, dependence and historically

determined minorities. Speaking of communities that are set up to devote themselves to thinking represents, in this sense, a movement of opposite sign to individualism, heteronomy, and uniqueness of thought.

The term community, in fact, intends to establish the axiological and utopian positioning of pedagogy for the formation of man in the horizon of democratic participation in the definition of social values. In this sense, it is in essence distinguished by two traits, which are both necessary to bring about the highest degree of reflection: reflexive intentionality and the community dimension.

By reflective intentionality we mean the choice of a community to deliberately establish itself in order to think not only about how to improve practices or how to solve problems, but to pool all its members' thoughts on what is being done, so as to be a critical factor for self-development for one another. The reciprocity (Michelini, 2016b) of the *CdPe* is the awareness of the interdependence of all the subjects in interpreting, attributing meaning to their actions, thus becoming able to go beyond them and move forward. In this sense, it differs from the community of practice (to which the construct deliberately refers), introduced by Wenger (2006). The *CdPe* is, in fact, a community set up for the intentional purpose of reflective commitment of the second level which transcends the plane of a functional reflection to act, although it assumes praxis as a reference and starting point for its own constitution.

For this reason, the most marginal areas, those least necessary to the endeavour upon which the community is established, are those best suited to start their establishment. When a community shifts the focus of its research on the meaning and potential of its own peripheries and, above all, of its own margins, the perspectives widen, and the community evolves significantly. The community exercise of practice does in fact generate boundaries, giving life, in Wenger's vision, to different types and levels of participation and learning. In real contexts, in fact, it happens that the movements that occur in the peripheral and marginal areas (Wenger, 1998) of the communities, become an opportunity for significant transformation of the same. But this does not happen in all cases and in all circumstances, quite the contrary. If these areas are underestimated, in terms of their meaning and potential, they often become a source of destabilization, if not destruction, of the communities themselves.

3. The creation of reflective systems

For the idea of *CdPe* not to remain a mere rhetorical invocation and/or a simple dialectical exercise, it is necessary to make organizational choices and employ all the tools and operating apparatus that turn this conception into a concrete reality, giving birth to a real reflective system, in which the right conditions are created for the search for connectedness and mutual contamination, where theory and practice are tightly intertwined. When this happens, it is possible to attain the best outcomes in terms of generativity and efficacy of thought. In the research paper, *The reflective teacher* (Michelini, 2013), we had the opportunity to experiment its enactment within the context of in-service teacher training. At the same time, the same survey made it possible to highlight the incidence of resistance to change even by teachers who were both motivated and reflectively well equipped. In particular, the survey revealed the tendency to revert to consolidated habits, as soon as the reflective thinking support typical of experimentation stops being provided. The same reflective instruments that had been experimented and whose worth was acknowledged by the participants, both while the test was in progress and at the end of it, have been progressively been abandoned in terms of regular use. The data appear to confirm the

difficulty emphasized by the scholars we have referred to with regard to reaching the highest forms of reflection that, alone, can generate that profound transformation of ideas that succeeds in going beyond the mere technical and applicative dimension of professional practice.

Consequently, from this point of view, training in reflective thinking calls for the intentional establishment of a democratic community, which requires a system that manages to preserve its vitality, bearing in mind the difficult task of achieving the highest degree of reflection. In this sense, to talk of formation of teachers entails not just a democratic and participative teleological choice, but also the creation of those conditions, structures and tools that, as a complete coherent body, accompany and pave the way for higher-level reflective processes.

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The Frame and the Horizon. Pedagogical Thought and the Training of Teachers between Subordination and Emancipation

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Keywords: *Education, Emancipation, History of pedagogical thought, Democracy, Teacher training*

Introduction

The contribution aims to highlight how fundamental teacher training is both to enhance the link between education, democracy and citizenship, and to build a better one between an empowering pedagogical thought and daily educational action. Indeed, the training of teachers is necessary in a one-sided social and cultural environment which seems to be enframed in the single ideological paradigm of neoliberalism. By rediscovering pedagogy as a tool for the emancipation and development of future generations, teachers and their training will no longer be subordinate to the neoliberal hegemony and will regain full respect for their dignity and status in the society.

1. The crossroads

It is often pointed out that the school is at a crossroads: on the one hand, the market constantly fuels competition and takes efficiency as its only benchmark; on the other hand, democratic thinking aims to lead to full human emancipation (Baldacci, 2014). Education is therefore forced to make a choice and the training of teachers will be affected by one path or the other. Certainly, this issue does not concern only schools but society as a whole, which is immersed in a system of thought that makes it very difficult to distinguish the frame from the horizon. For this reason, the starting point must be society.

Several studies (Mirowsky, Plehwe, 2009; Mirowsky, 2013; Stedman Jones, 2012) argue that the flexible nature of neoliberalism has managed to deeply transform the social, ideological and material fabric of society by depriving the word neoliberalism itself of its meaning all over the Western world despite geographical and historical differences (Srnicek, Williams, 2018).

This recalls Gramsci's warning about capitalism being able to base itself upon hegemony, that is on public consensus thereby leading a certain (dominant) group to impose its visions upon others. We only need to understand this aspect to understand how common sense can contribute to establishing a worldview as the universal horizon of an entire society, thus making it difficult to distinguish the thin border between frame and horizon and making citizens subordinate to and dominated by a single ideology.

This form of colonization today is not exercised through coercive methods but rather through the active and passive consent of the public in different ways, not only through the formation of political alliances, but above all through the dissemination of cultural and social values.

History tells us that economic and technological infrastructures have repercussions that can shape and modify human behaviour; in short, hegemony, and the resulting subordination, are not only material but also social forces. These

hegemonic aspects have become so inherent in technology and the material environment that they constitute our everyday world.

For those who want to oppose this thought, this implies to continually resort to counterhegemonic actions that allow to open new windows and imagine new tangible frames. But the construction of these new frames clearly goes against most of today's emancipation efforts which focus on elements of immediate resistance and of daily indignation that certainly ignite significant social issues, but that turn out to be unrealistic and irrelevant against an ideology that has already crept into the deeper layers of our society. Therefore, we remain entangled in this capitalist realism (Fischer, 2009) and the sense of impotence that follows necessarily influences the education system, which is forced to witness its gradual conquest by an all-pervasive force. Indeed, the school is strategic in the construction or deconstruction of a dominant thought.

In fact, school risks reflecting society more and more, given that society itself is made by individuals who build their ideology and their vision of the world within society and in everyday life. And the neoliberal man who builds himself within this vision of the world is a new subject who wants to be a paradigm of the human: the man-enterprise. «Business is therefore not only a model to be imitated, but also a certain attitude to be stimulated in the child and in the student, a potential energy to be stimulated in the worker. By establishing a very close correspondence between self-government and the governance of society, the enterprise defines a new ethic, that is, a certain inner disposition, a certain ethos to embody for self-monitoring that evaluation procedures must strengthen and verify» (Dardot, Laval, 2013: 415).

All the arguments mentioned so far are the result of that neoliberal ideology that has inevitably influenced the field of education. The school reforms that have been implemented in recent years have relentlessly eroded the community of teachers, who stand as a bastion of the democratic and civil dimension of the school institution.

The question is thus whether it is still possible to imagine a school that is directed towards the full emancipation and the intellectual and moral growth of citizens, a real school of the constitution capable of promoting a full development of the person and a civil and democratic growth of the country (Baldacci, 2014). How many times in the school corridors do we bear witness to conversations between teachers depicting dystopian scenarios and the inevitable decline of the school institution? In the aforementioned context, it is clear that teachers are nothing more than mere executors and transmitters of prepackaged knowledge, functional to the application of the 'Man-Enterprise' formula in the school environment.

In order to train teachers within the constitutional framework and democratic citizenship, the first step is to endeavour to break this cultural subordination and to regain possession of a different language, rediscovering the strategic link between democracy and education. A different framework is necessary to account for the democratic horizon and pedagogical knowledge as an autonomous science.

2. Rediscovery through the classics

Rediscovering the strategic link between democracy and education is the only way to emancipate schools from their subordination and will allow the new generations to take their destiny into their hands and promote the development of humanity.

I will attempt this breakthrough by shedding light onto the ground-breaking studies of pedagogists which can be the key to imagine, and implement, different scenarios. Rousseau wrote: «The first man who, having enclosed a piece of ground, bethought himself of saying 'This is mine', and found people simple enough to believe him, was the real founder of civil society. From how many crimes, wars, and murders, from how many horrors and misfortunes might not any one have saved mankind, by pulling up the stakes, or filling up the ditch, and crying to his fellows: 'Beware of listening to this impostor; you are undone if you once forget that the fruits of the earth belong to us all, and the earth itself to nobody'» (2017: 60).

Surely, the question is not so much the abolition of private property, although many elements should lead us to reassess the value of private ownership of the means of production, which today disregards the land and its ecosystems and human relations. Thematizing this is necessary to reassess the question of enterprise, which has become an enemy ground. Knowledge should be reimagined as real common enterprise and the privileged means of personal growth for an individual in which self-realization, material well-being and economic and commercial success are perfectly combined. This may be even more evident today, given the increasingly social and cooperative nature of production, which makes it clear that the right to property cannot coincide with the right to monopolise a good and to individually appropriate decision-making powers. So, the real question to be asked is whether knowledge can still be thought as common ground in schools and whether schools can still be imagined as a common good.

Today, these issues and aspects should be more evident than ever before, given that the networks and means of production continuously shed light on the legitimacy of the individual ownership of the means of production and draw attention to the redistribution of wealth. Bernard of Chartres said that we are like dwarfs on the shoulders of giants. What metaphor can be more powerful than this to illustrate the importance of knowledge in our schools? We will not be able to look far if we do not dare to explain and put into practice in schools that we must aim to and bet on others, because only together can we dare to change perspective and because changes can certainly start from each of us, but are effective if we make them collective. To be truly effective, teacher training requires a solid background in the history of pedagogy and in particular in those authors who placed democratic thought at the centre of their research.

Dewey wrote *Democracy and Education* (1970) at the beginning of the 20th century precisely in the transition from a rural production system to a mass industrial one, in which workers were forced to adapt to the machine: in some way, it was a period very similar to ours. Throughout his work, Dewey points out that the ultimate goal of education is exactly the collective dimension and the socialization of knowledge, which must be enhanced within and by schools: «Therefore, to say that the validity of the structures, of the curricula, of the methods of the school are measured according to the social spirit by which they are animated, does not mean other than to reaffirm explicitly what we argued in the first chapters about the social function of education. And the great danger that threatens schools is the absence of a social dimension, which is the great enemy of an effective moral training». He continues: «First of all, the school itself must be a community in all its nuances. Social perceptions and interests can only be developed in a truly social environment, where there is an exchange in the construction of a common experience» (Dewey, 1970: 457). Against a different backdrop, Maritain (2007) too stresses in various works the links between democratic and Christian principles which can be translated into educational practice when exploring issues such as the unity of

the human race, the equality of all men, the human and labor dignity and the pursuit of collective goals.

If put into practice, these ideas can widen the scope of education by providing students with empowering tools in a fruitful environment thereby promoting democratic growth, constitutional awareness and critical thought. The alternative is to let today's hegemonic ideas continue to represent the frame and the horizon, and therefore schools and teachers develop according to capitalist principles that risk reducing pedagogical thought and human experience to mere marketing

Conclusions

In conclusion, rediscovering the social dimension of education would change the common sense of future generations, renewing the social and utopian imagination, and paving the way for a better future. Bloch wrote that Marx wanted to act and change the world through the will and therefore did not just wait for certain conditions to occur but thought about how to make them emerge. In the training of future teachers, this could be the most ambitious path to choose.

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Universities as Economic Actors in the Knowledge Economy

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Keywords: *Knowledge economy, University, Neoliberalism, Postmodernism, Critical theory.*

Introduction:

Since the *Republic*, imaginaries of societies led by knowledge have been described as utopias or dystopias, as if the future of a nation can hardly be made up of the knowledge it produces. However, for more than forty years, it is conventional to say that we live in a knowledge society that conditions the economic processes and individuals' lives. This elimination of the border between knowledge and the economy made of universities a factor in the international market, and a topical subject for academic discussions. This paper tries to document the major approaches: the neoliberal, the postmodernist and the critical.

The knowledge economy is «an economy which is directly based on the production, distribution and use of knowledge and information» (Kefela, 2010). Its key component is the essential recourse to intellectual capabilities more than natural or human physical resources (Powell, Snellman 2004).The World Bank framework identified the following key pillars of it: education and training, research and innovation, economic incentives and institutional regime, ICT and infrastructure (Đonlagić, Kurtić, 2016). Knowledge is seen as contingent to the capacities of the workers; therefore, higher education is the key to economic innovation. This model was adopted by various world economies, and its results have been studied with different varieties, for instance China (Dahlman, Aubert 2001), the Arab region (Weber, 2011), Malaysia (Mustapha and Abdullah 2004) Vietnam (Tran et al., 2016) or the European Union, whose Lisbon 2020 agenda states that the EU is «striving towards developing a knowledge economy, a sustainable economy based on employment, innovation and education».

1. The neoliberal approach or education with no 'social romance'

Neoliberalism is characterized by the self-interested individual, free market economics, a commitment to laissez-faire and free trade. several principles that describe the policies of the Organisation for Economic Co-operation and Development, which is at the origin of knowledge economy. According to this vision, universities are essential economic actors in economy and are part of the positive state's actions in creating the appropriate market conditions, laws and institutions for the market operation to boost growth and insert individuals into a globalized world of competition. Universities became part of a hidden hand, a technique of government power, acting through the different institutions of the state to create the conditions of efficient economic production. Universities should be not negative but positive as participant economic actors. In other words, for neoliberalism, the production of knowledge by universities should operate without any interference, for instance, from concerns with the

environment or social welfare (Welch, 1998) or what Buchanan calls public romance.

This is where neoliberalism is different to liberalism, which supports a negative power towards knowledge and the institutions producing it and the lives of the individuals. The knowledge economy then as an expression of neoliberalism is developed around many theories like the economics of information developed in the Production and Distribution of Knowledge in the United States by Matchlup (1962), which showed the importance of knowledge for economic growth, the human capital theory by Schultz (1961), Becker (2009), and Mincer (1958), which presents higher education as both a public and private investment decision for governments and its people. Knowledge became the new hope for the middle class, as Peter Drucker predicted that power would move from capitalists to knowledge workers.

The knowledge economy increased the demand for a workforce with university degrees. For the course provision, there is an interest in the more productive fields. Even the social sciences are now asked to be not a mirror of society, they must show how it could be otherwise, suggesting and representing capacities for action. In one word, *scienzia est potenzia* seems is the most potent criterion for knowledge provision.

This neoliberal reasoning is potent because of its tendency to combine economic, social, political and educational dimensions for the sake of rational choice as a principle of legitimacy (Van de Werfhorst et al., 2001). It presents itself as having the power of 'pure forms of rationality'. But if the neoliberal approach is necessary to chart the change in the business/knowledge landscape, it leaves us short of its results on the status of knowledge and how it can operate as a method of governmentality. Such limits are points of interest for postmodernism.

2. The postmodern approach or looking beyond knowledge

Postmodernism has been successful in the academia and has influenced the structures of its system (Delanty, 2003). Let us observe how it approaches the crisis of knowledge under the knowledge economy as part of the crisis of modernity. This thesis, associated with Lyotard (1984), who announces the end of universities along with the end of the nation-state. For him, as we live in a period of incredulity towards the metanarratives where it is no longer clear what modernity is, the identities of nation-states are declining, and there is no need to protect them (Readings, 1996). The mission of universities is not clear as the status of knowledge is altered by our entrance into what is known as the post-industrial age, where we no longer have the two principles that the enlightenment posed for knowledge: to promote emancipation, and to follow no specified material finalities. Knowledge now, as explains Lyotard, in computerized societies is becoming 'exteriorized' from knowers. As a consequence, the modern emancipatory role of universities seems to be lost under the knowledge economy, and the very notion of universality, or even the idea of a curriculum, is now impossible, given the fragmentation of knowledge, as in, for instance, the separation of teaching and research. Currently, knowledge will increasingly be translated into quantities of information, with a corresponding reorientation in the process of research. These changes in knowledge must then be part of the profound changes within universities, which have played historically different roles for the national state from the first role of morality, to critical thinking and finally innovation.

Delanty (2003) challenges this idea, he thinks that modernity has never been a complete project and therefore universities are sites where many contradictions are expressed, and big debates that keep the universities. Thus, one should not focus merely on knowledge as information or as science, but on a deeper conception of knowledge. To this approach we wonder if it is an expression of the advanced knowledge economy that presupposes that there is no total deciphering knowledge, as different forms of knowledge co-exist sometimes even in interdependence within the same society.

The Foucauldian governmentality is also interesting for postmodernism to see universities and knowledge as techniques of government to address us as lifelong learners and to create an infrastructure to operate in the learning society (Simons, Masschelein 2006). This discourse produces a dominant political rationality through which universities are governed and govern themselves. This discourse is articulated in terms of the competitiveness of universities and the international skills of individuals, contributing on the one hand to creating universities as enterprising, autonomous, competing actors in the global labour and education market, and on the other hand, continuing to link them closely with the project of national competitiveness in the era of globalization. In other words, universities in the knowledge economy work on us and through us to establish the new moral order of schools and schooling, and to produce the new student subject appropriated by the neoliberal economy. Andrea Liesner (2007) analyses the transformations at work in the so-called 'harmonization of the architecture of the European higher education system'. She sketches how teaching and learning appear in the knowledge economy and indicates how in the reorganisation of the curriculum universities appear as environments that foster students and teachers to conceive themselves as entrepreneurial customers and service providers. consequently, the political 'Europeanization' program of universities puts a mode of government and self-government at work.

For postmodernism knowledge in this context is understood always as political. But it has shortcomings as it can serve to justify neoliberalism in knowledge economy instead of it resting to it. It. This element might produce the basis of a cynicism that the critical theory adopts the mission of criticizing.

3. The critical approach or the knowledge economy as a Halbbildung

The critical theory assumes that knowledge is a rational product of human interests. In the sense that people know what they are interested in, what gives more power. Therefore, an analysis of the knowledge economy should take into account the elements of the political economy, domination, exploitation, and ideologies. There are fewer studies of this approach to the knowledge economy in comparison with the postmodernist and neoliberal, a surprising fact, given the importance it gives to notions like cultural domination and the criticism of reason, elements that were shifting points from orthodox Marxism. Only few studies are present, and they mainly focus on the level of formal discourses (Fairclough and Wodak 2008; Robertson 2005).

But grasping an understanding of the topic through the framework of analysis of the theory is possible. As knowledge falls into the logic of power, many elements are questioned, one of them is the oppression produced by the conflict between the individuals´ autonomy and their adaptation to the demands of economy. In *Theorie der Halbbildung* Adorno argues that education *Bildung* in its full sense is continuously under threat of becoming reduced to form of 'half-education' *Halbbildung*. From the studies of Stanley Aronowitz and Dr. Henry A.

Giroux (2000) and Giroux (2010) we can say that knowledge in (full) education does not aim to achieve 'useful' ends, it is designated to the long-term interest and personal development.

This phenomenon was described by Adorno as the 'double character of progress': liberation is closely connected to tendencies of oppression. As we can understand from *The Theory of Communication Action,* Habermas reveals that the processes of rationalization are a characteristic of modernity that is one-sided, privileging a strategic rationality. Concepts like critical thinking innovation or excellence emerge with the same scope of being instrumentalized with an 'employability narrative' that conflates the longstanding division between 'academic' and 'vocational' education. This pedagogical dynamic is part of the logic of neoliberalism as identified by Slavoj Žižek, wherein cultural transgression is not a threat to capital but the basis for its expansion (McMillan, 2018).

Critical theory in addition to its criticism of the economicalism and managerialism of knowledge, it is transformation-based; it tries to present an alternative perspective that goes from the dangers of and limitations associated with the knowledge economy as an economic career of knowledge and education by consequence. It tries to enhance the consciousness against what it considers as alienation. Critical Theorists encourage and facilitate social action for the purpose of precipitating social change. The role of knowledge then is not one of objectivity and consensus but resistance and criticism that must be a vital pedagogical tool. The potential to empower those in the field of education to increase their consciousness about the injustice in their society and to be involved in transforming it.

The situation of knowledge in the knowledge economy for critical theory is important as Giroux (2017: 6) says: «higher education institutions are the institutions responsible for safeguarding and sustaining critical theory, and they should be seen as a public good rather than a private investment». A general rule and obvious result in this context is that whoever funds universities is also the one to decide for them. These new sovereigns made of private investors conceive themselves as the managers of then academia (Giroux, 2010), and the financial economic became intolerant to forms of criticism by the academic the staff.

The critical theorists here don´t only join the Marxian tradition but also the liberal one that goes against the interventionist state as Hayek demonstrates. «any attempt to supplant market relations by public planning cannot avoid calculational calamities and is therefore doomed to failure» (Olssen, Peters 2005: 102).

Conclusions

Between the yardstick of profit and that of civic engagement, the different approaches exposed a common conviction in the role of higher education. The same persisting idea of the enlightenment that education can serve as a hindrance to everything. If neoliberalism conceives the knowledge economy as state intervention to a globalized economic order. Postmodernism and critical theory see knowledge as politically and socially constructed, but they remain different on the results of their approach, the postmodernist approach views the hidden missions of universities related especially to systems of power and processes like governmentality and biopower, critical theory provides elements that argues are necessary to resist the present economic order. But in all cases, the question that we should ask is to which level universities still have the integrity to do this?

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Educational Models and Innovative Teaching Practices in the University Experience

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Keywords: *Didactic innovation, Educational models, Teaching practices, Educational experimentation, Evaluation.*

Introduction

Didactic innovation, especially in the most recent period, has taken on different connotations. It refers to a cultural and epistemological change that is reflected in the redesign of the educational models and teaching practices (Braga, 2017). In defining the didactic innovation, we often refer to the use of new technologies. But didactic innovation is not only related to the use of digital, it is also research, experimentation of new educational practices, adoption of active and laboratory methodologies (Zanato Orlandini, 2002; Semeraro, 2006; Falcinelli et al., 2009). This contribution will illustrate the results of an exploratory research involving professors from two universities: the University of Rome Sapienza and the University of Perugia. The research aimed at investigating how (and how much) the teachers surveyed, even in the absence of systematic training in teaching, had independently carried out innovative activities both in the design phase of the courses they own, and through individual initiatives launched in the classroom.

1. Methodology

The investigation process was divided into three phases, carried out through specific actions. The first concerned the study of theoretical contributions useful for defining the innovative didactic concept and the recognition of the regulations concerning the evaluation of didactics at Italian and international level.

The main theoretical thread that has been investigated in the background research is constructivism, in which the concept of didactic innovation refers to the reflection on the didactic activity of the teacher. The shift that is taking place in the axis of teaching to learning leads to the construction of a welcoming environment characterized by positive relationships and the activation of new services to accompany students, as well as the adoption of a new way of understanding the same co-communication of knowledge. In the most recent scientific literature, there is a strong focus on forms of teaching that differ from traditional approaches. For example, there is the heuristic mode, in which discussion with students in the classroom is central, and the 'flipped lesson', in which the transmission of information does not take place in the classroom, but at other times before or after.

From the theoretical survey also emerged some thematic nodes with respect to which the scientific readings are lacking, such as the reflection on the possibility of making personalized study plans and the role of other figures supporting

the teaching, such as tutors, mentors and figures experienced in educational planning. The background research on the regulatory framework identified explicit references to the perspective of New Public Management. Terms such as effectiveness, efficiency, quality, competition between universities, "incentives related to the achievement of results" are used and refer to economics management logics.

In the second part of the research, a survey of university professors was carried out. In-depth interviews were carried out to explore the ways in which innovative activities in the field of education could be carried out. The subjects were selected on the basis of the educational innovation initiatives undertaken, the disciplinary sector to which they belong and the role they play. Teachers with management responsibilities within the universities were also interviewed (Department Managers, Headmasters, Rector Delegates).

The interviews were aimed at exploring the biographical experience of the subject linked to the acquisition of the first skills in teaching; the aspects of the design and management of the courses for which we are responsible; the relationship with the students; the sphere of evaluation, concerning: the dimension of the basic knowledge of the students, the criteria for formulating judgments and the methods for verifying the learning and, the broader scope of the evaluation of teaching at the level of the university system. The analysis of the interviews was carried out both following a hermeneutic approach (Montesperelli, 2009) and through the CAQDAS approach (Sofia, 2004; Vardanega 2009).

Finally, in the third phase, a survey was carried out on the university students of Sapienza. The aim of the survey was to study the role and function of teaching, the innovation of teaching models and the educational practices of teachers from the students' point of view. In order to investigate the latter, a questionnaire was prepared, in order to detect the opinions of the learners regarding the didactic activities organized during the lessons and some more general evaluations of the courses followed.

2. Outcomes

The research has made it possible to highlight the value attributed to teaching and training for teaching by outlining the characteristics of the teaching activities defined as innovative and the methods of design and implementation of the latter. In addition to this, we have tried to understand how the changes in the university system (institutionalisation of evaluation, use of technologies and digital media) are influencing teaching practices, the relationships between the actors in the training process (students, other teachers, administrative staff) and individual and collegial self-reflexivity. The interviewees described the didactic activities they have experienced both as teachers and as learners. Among these, it was possible to trace the set of initiatives of didactic innovation. Going beyond the simple description of the actions undertaken, reference was made to the ways in which they were argued in order to widen the semantic space of the real definitions of didactic innovation.

First of all, a common agreement emerges among the interviewees in conceptually separating what is defined as 'innovative didactics' from the implementation of specific techniques and methods of delivery of content. One of them declares that: ‘a form of innovation is the way of teaching’. A common element around which to gather the various experiences of teaching that can fall under the concept of 'innovation' was the need to induce the student to develop critical skills transversal to the specific con-tenants being taught.

In order to support the dissemination of innovative didactic experiences, in the opinion of the interviewees, we cannot ignore awareness actions that also act at system level. The experimentations mentioned by the interviewees more often refer to the procedural, instrumental and infrastructural aspects to support the didactic activities rather than to actual models and methodologies: the adoption of digital technologies - considered by all only a collateral and non-substantial part of the innovation -, interactive activities (dramatizations, role playing, beats, readings, simulations, etc.), the realization of projects involving students, the viewing of audio-visual or films, the involvement of external guests and to case studies. Among the aspects that constitute an obstacle to the implementation of the activities there are the structural impediments, concerning the lack of technological equipment in the classrooms, the arrangement of chairs, desks and the chair but also the way in which it is organized, at centralized level, the scanning of the courses (calendar of lessons). On the basis of the statements of the interviewees, we can therefore define educational innovation as an area that is still not very formalized in which individual teachers express their creativity in many ways, trying to implement initiatives even in the absence of real competencies.

According to others, innovation also involves the adoption of a suitable language to convey the topics of the course. It is believed that language is a very valuable tool and should be used to present topics in an innovative way. The design of the course is also a very important topic for the interviewees, who declare to refer first of all to the requests of the students, but also to the need of the teacher to be able to transfer the knowledge foreseen by his own teaching.

With respect to the content of the courses, the teachers refer to the relationship between theory and practice and address it by recalling the importance of providing the theoretical basis of a discipline without being exasperated by the growing demand for learning technicalities expressed by several students.

There are rare moments of collegiality among teachers. The comparison with colleagues is still sporadic and, above all, does not take place according to the prognosis of the courses. This aspect is also seen as one of the causes of 'teacher isolation'. The interviewees declare that they have put in place different strategies to relate with the students. Some of the teachers spoke explicitly about the 'flexibility' of the didactic experience, above all because they believe that the proposed activities try to listen to the needs of the students. In order to assess these needs, they mostly refer to the results of the structured survey of students' opinions (OPIS) and, only more rarely, to the opportunities for direct comparison (in the classroom, during reception hours, during exams, on occasions of informal interaction). Teachers also relate to students through the use of digital technologies and social networks. These tools offer real opportunities for comparison and expand the sphere of institutional communication (mail, web professorships, web pages of the course). However, it is not always easy to find the right balance in the construction of a dialogue through tools that, if misused, could cancel the formal relationship teacher-student considered necessary for the development of the training course.

3. Evaluation and didactics

Evaluation has become increasingly important in the Italian university context. In the field of teaching, the road has just been marked. However, in the latest update of the legislation on the evaluation of study courses, a set of indicators for the evaluation of didactics has been developed in a more systematic manner.

The topic of evaluation is addressed by the interviewees from different points of view:

- the evaluation of learning by the teacher,
- evaluation of the teacher's performance by the students,
- evaluation of teaching at the level of the university system.

Compared to the first of the aspects indicated, teachers point out substantial differences between traditional learning assessments (oral exams or essays), and new assessment methods considered more 'flexible' and capable of enhancing students' soft skills (project work, multimedia projects, group work, case studies, peer evaluation, empirical research activities, etc.).

In the application of the new ways of evaluating learning, teachers are personally involved in the design of the activities they propose in the classroom. As far as the evaluation of the didactics is concerned, the teachers' reflections focus on two main aspects: the evaluation expressed by the students - through the OPIS questionnaires - and the self-evaluation that the teacher makes of his course. According to what was stated by the interviewees, the tool for measuring the opinions of students (OPIS) is, at the moment, the only way to evaluate the teaching. This tool is used to measure overall satisfaction with the course delivered, with the infrastructural aspects of the environments in which lessons are held and with the teacher (competence, communication skills, etc.). Unfortunately, as many have acknowledged, the questionnaire does not capture many salient aspects of the course delivery and reduces the expression of the students' opinions to superficial results of doubtful reliability. Some of the respondents stated that they were interested in listening to more explicit opinions from the students (about choice of new texts, liking of the content conveyed by the guests invited to the lesson, appreciation of new ways of evaluating learning, etc.). The dialogue with the students also becomes a way of self-evaluating the teacher, which to some extent goes hand in hand with the results of the standardised questionnaires.

Even if recently, through the new AVA system, indicators have been proposed for the standardized evaluation of some aspects of teaching, the interviewees, in this phase of transformation of the evaluation criteria, seem not to have perceived the extent of the change. Presumably in the years to come these aspects will become more and more important and will guide teachers to develop a new concept of teaching, which takes into account not only the results to be achieved within the individual teaching, but also the educational objectives of the entire degree course.

Conclusion

Innovative didactic strategies are therefore centred on the assumption of complex cognitive models that make students free and able to deconstruct, order and restructure knowledge in relation to the social contexts of reference. Despite the fact that in our country there has been an increase in attention to the evaluation of university teaching, this tool is still today an instrument of organizational accountability (Turri, 2005). It presents three problematic issues: epistemological, pedagogical and institutional.

The first question concerns the way in which knowledge is transmitted and refers to the redefinition of the roles of teachers and students in the transition from the transmission model to the model based on learning, which requires the acquisition of skills relating to critical ability and the ability to use knowledge acquired in a critical manner both in terms of the continuation of study and training courses and in terms of a professional project. The pedagogical question

concerns the need for university teaching to change and become controllable also in order to enhance the value of good teaching practices (Boyer, 1990). Finally, the institutional question concerns the methods of recognition of excellence in educational practices for the progression of career paths, motivating teachers to participate in programs of educational experimentation and to promote professional development.

In short, we can say that didactic innovation has started sporadically through the voluntary experimentation of some practices by teachers. These practices are implemented by the individual teacher and are not discussed and shared with colleagues. In fact, there is a lack of participatory didactic planning.A new concept of didactics is slowly emerging both through the practices experimented by the teachers and through the attention that the university system is attributing in the last period to this dimension. Even if these first experimentations are not inscribable in a theoretical paradigm, we can say that they begin to deviate from the transmission model of knowledge. Moreover, they could also be useful to start a debate on the subject within the bodies responsible for the management of study courses and coordination at the University level where they could be shared within the training courses for teaching recently launched. Teaching, which in recent years has become increasingly important, will be crucial for the qualification and enhancement of the profession of teachers and for the enhancement of training courses. We are in a phase of transition in which the transmissive and reproductive model of knowledge still prevails. The occasions in which the student is placed at the centre of the didactic action are there, but they are still infrequent. In many cases, experiments are pioneering. Innovative practices refer to active learning and problem based learning, but particular forms of collabo-ration and social negotiation that can refer to social learning have not yet been realized. As far as connectionism is concerned, finally, we can say that, although e-learning experiences are now widely underway in our country, the testimonies of the subjects do not reveal a reference to these modes of learning. Finally, it should be noted that the use of networking is more widespread even if in an accessory way and not as an organ integrated in the didactic planning.

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Intercultural Learning (Development of Competencies) by Students of the Faculty of Education. Using the Example of Intercultural Attitudes and Learning Processes in Teacher Training in Italy

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Keywords: *intercultural learning, intercultural competencies, intercultural teacher education, Identity development*

Introduction

A full inclusive teacher has the task not only to recognize exclusive mechanisms, but also to interact in order to guarantee inclusive settings. Starting from the point of few, that the majority of teachers in Italy have grown up in a monocultural context or rarely learn their teaching profession in intercultural groups it is often difficult to comprehend the peculiarity that there are about 200 countries of origin in the Italian school (MIUR, 2012). It is easy to understand the complexity of the phenomenon, especially when teachers must develop didactic strategies for teaching cultural techniques such as reading, writing and arithmetic and initiatives to support integration of foreign students (Fiorucci, 2015). Nevertheless, as Cambi (2006) affirms, the role of the school has a pioneering character.

> We have to recognize that in Italy, as elsewhere, the school moved first as soon as the multi-ethnic society appeared. And it moved with commitment, with passion, with responsibility, and with theory and strategy. Nowadays, the intercultural work carried out by schools is articulated and mature, often of excellent quality. It is no longer only affected by the principle of acceptance, but it has also penetrated into more subtle and complex dimensions of doing-interculture (Cambi, 2006: 109-110).

The teacher perceives that cultural and professional certainties falter: they have therefore to face new dynamics and are forced to review the training project and the way in which knowledge is transmitted; it is required to question tradition, consolidated modules, his own communication skills and they must accept a fundamental value: experimentation.

As researchers and defender of a ‘democratic school’ we should also call to our mind, that regarding a methodological and theoretical approach we take into account the principle of Pinto Minerva's (2007) approach to pedagogy, which is per se intercultural: from these assumptions, the efforts of an intercultural pedagogy are not only a special field that has to be considered, but become the core task of all pedagogical and didactic efforts. In this way we leave the view that intercultural education is not ‘also talking about us’ and we deconstruct the idea of an intercultural education that is only oriented towards the target group of migrants. That is the reason why we put these considerations into practice in teacher training: The goal of our work with the students is reflecting on attitudes, prejudices and current beliefs.

1. Research Methods

The intercultural attitudes and learning processes of teacher students was analysed by qualitative and quantitative methods. For the qualitative part was used the qualitative content analysis according to Philipp Mayring (2010). The quantitative data was collected by a questionnaire using the Cultural Quotient Scale (CQS). This instrument was developed from Linn van Dyne (Michigan State University, 2015) and has been used with permission of the Cultural Intelligence Center, University of Michigan. The questionnaire uses 4 subscales.

- Metacognitive CQ (4 items)
- Cognitive CQ (6 items)
- Motivational CQ (5 items)
- Behavioral CQ (5 items)

The response categories of the questionnaire ranged from 1 = 'strongly disagree' to 7 = 'strongly agree'. The data Collection took place from October 2018 at the Free University of Bozen-Bolzano with 1st year students (N=111 students) and in March 2019 as well at the Free University of Bozen-Bolzano with 3rd year students (N=58 students). The significance tests were performed with a two-sided t-test. Cronbach Alpha test showed good results with a value of 0,88 (N=166).

2.1. Research questions for the qualitative data analysis

I) Does the intercultural learning at the university promotes a reflection and sensitization for the risks of social exclusion mechanisms from living together in a multicultural society such as South Tyrol/Italy (especially migrants as an added fourth population group in a trilingual multicultural society)?

II) How can we focus on considering also autobiographical elements that underline that intercultural education is not only oriented towards the target group of migrants, but aims also to develop of an educational path of all participants?

2.2. Research questions for the quantitative data analysis

I) Which attitudes and beliefs can be found among students without previous experience in intercultural competence development at the university (Free University of Bolzano)?

II) Are there significant differences regarding the sociodemographic variables: age, gender, number of semesters and students' stay abroad regarding the CQ construct of the interculturality?

III) Which conclusions can be drawn from existing differences in interculturality for the organization of studies and the module Intercultural Pedagogy and Inclusive Pedagogy?

2. Background

Starting point for the analysis of the matured competences during the teacher training is the study curriculum at the FUB – UNIBZ (www.unibz.it). To take into account an interdisciplinary approach and a contemporary development of the state of the art in the studies for inclusive education, in the academic year 2017/18 a re-modularized study program in the Master degree for teacher training has been proposed: the module in the first study-year is called 'Inclusive Pedagogy' composed by 'Special education' and 'Intercultural Pedagogy' (M-PED 03 und M-PED 01). So, the focus is clearly placed on a wider interpretation of the inclusive education field, according to (Allemann-Ghionda, 2013), that propose to think Inclusion (theories) in an inclusive way. The students should:

- Recognize cultural/social differences and individual differences in learning;
- Understand the cultural and structural foundations of inclusion pedagogy and intercultural pedagogy (Total number of lectures hours 60 h - total number of laboratory hours: 40h);

In the old study regulations, the focus was put on the cultural sciences, that includes Cultural Anthropology and Intercultural Pedagogy (SPS/08, M-DEA/01, M-PED/01) and in this context the students should:

- Be able to reflect on difference experiences and external perceptions;
- Be able to recognize, observe and evaluate the connections between anthropological foundations, intercultural learning and social learning;
- Have elements of intercultural communication;
- Know and understand the theories and concepts of cultural anthropology and intercultural pedagogy (Total number of lecture hours: 60h - total number of laboratories hours: 20h);

The formation of an intercultural approach to knowledge, relationships and social coexistence requires to become aware of the cultural implicit that underlie daily behaviour and to make the transition from a single and rigid thought to a plural thought, available to cognitive and emotional decentralization (Auernheimer, 2010) and therefor the students cannot learn through transmission-only teaching processes, but through a required predisposition to change. In order to initiate this process, the students had to create a learning diary (study-board) that documents their learning process in 3 dimensions, according the theoretical background of Bräuer, G. (2014). (see below: Cognitive/ metacognitive aspects; Personal and motivational aspects; Social aspect and - possible future - didactic action).

3. Results

3.1. Empirical results for the qualitative analysis

Results from the qualitative content analysis of the student works (learning diaries) toward the cognitive/ metacognitive aspects:

- (F66) Learning about the meaning of terms, expanding knowledge (reasons, historical aspects, hybridity), cultural knowledge specific (expandable);
- (F36) 'Fake News' question certain information;
- (F25) appreciate diversity, expand knowledge about other cultures;
- (F145) Knowledge about the origin of refugees, motivations and their problems: push and pull factors, situation in South Tyrol's schools and the connection with other educational institutions such as the Language Centres.

Results from the qualitative content analysis from the student works toward the personal and motivational aspects:

- (F12) Sensitivity, understanding and empathy for migrants; interest in active participation in intercultural aspects;
- (F146) Dealing with the topic of migration, respectful interaction;
- (F145) Tolerance was already there, but understanding and sensitivity and awareness have sharpened;
- (F59) Change of perspective of ways of thinking helps me to react differently to the topic now.

Results from the qualitative content analysis from the student works toward the social aspect and (possible future) didactic action:

- (F63) awareness that intercultural education has to do with strengthening of existing competencies (empathy, conflict management, frustration tolerance);
- (F2) Exchange about one's own intercultural experiences is the basis for an inclusion of all different attitudes;
- (F79) give work assignments: reflect on the life situations of migrants, to reflect on prejudices, to respect the awareness of the life situation of migrants; read newspapers and information in a critical way (citizen education).

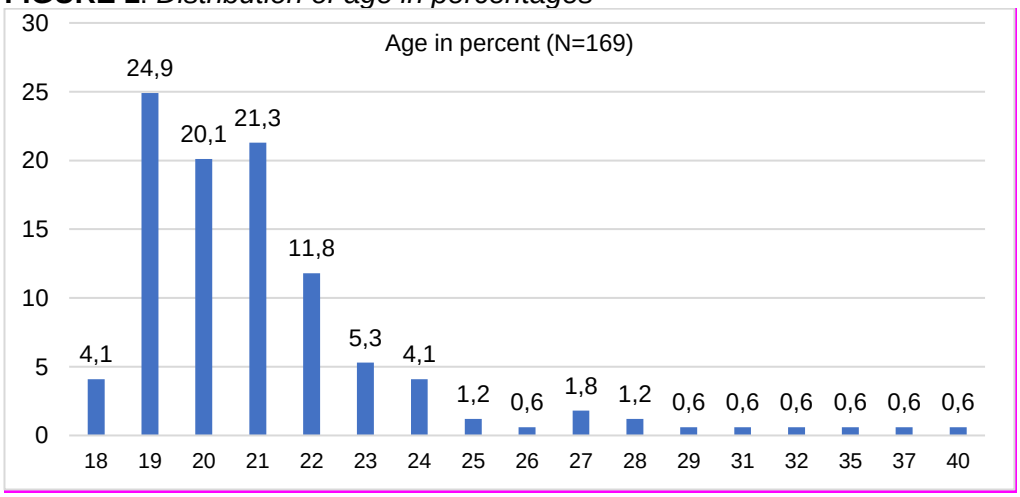
In order to systematically improve intercultural competences, students should take advantage of the opportunity to spend time abroad, and to this end we have to improve university counselling and existing opportunities (for example: freemover and Erasmus students).

- Real intercultural experiences have shown a positive effect on intercultural attitudes and beliefs. Such personal experiences with interculturality should therefore be strengthened in the module design.
- In order to improve intercultural competences within the module and in general, the variables motivation for intercultural exchange as well as knowledge on the topics and contents of interculturality should also be considered. This can be done, for example, through targeted additional intercultural offers in university and student life;
- The student cohorts are very different in terms of intercultural competences, whereby experience through age in this sample does not offer any experience bonus, but obvious societal influences affect attitudes towards interculturality more strongly.

3.2. Empirical results for the quantitative analysis

The age of participants in the sample of this research is wide ranged, as also students attending a professional in-service training participated. Therefore, the age was classified in 2 groups with a balanced distribution for the t-test. The first include mostly 1st year students from age 18 to 20 and the second group mostly 3rd year students from 21 to 40 years.

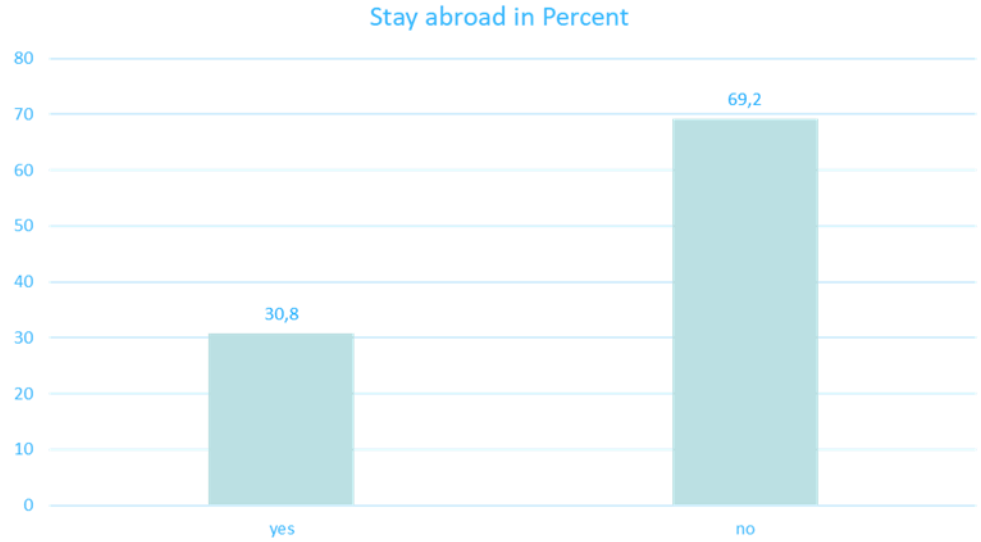
FIGURE 1: *Distribution of age in percentages*



Most students (65,7 percent) studied in the 1st semester at the Free University of Bozen-Bolzano (34,3 percent in the sixth semester). For both groups, it was the first experience to intercultural competence development during their

studies. The test for significant differences regarding the gender variable was made by a non-parametric test (Mann-Whitney-U-Test).

FIGURE 2: *Stay abroad (no vacation) in percentages*



It is common for teacher training students that only a few of them spend time abroad during their studies, although this is what the FUB strives for. But it should be noted that many 1st semester students were surveyed in this study.

4.2.1. Results on question 1 – Quantitative part

FIGURE 3: *Results of the questionnaire on the CQ scale and the sub-dimensions.*

Descriptive statistics for the CQ scales

	N	Minimum	Maximum	Mean	Standard Deviation	Variance
Scale_1_MetaCognitive	169	3	7	5,22	0,883	0,779
Scale_2_Cognitive	169	2	7	3,88	1,018	1,036
Scale_3_Motivational	169	2	7	5,32	0,972	0,945
Scale_4_Behavioral	169	2	7	5,10	1,166	1,360
Scale_CulturalQuotient	169	3	7	4,82	0,762	0,581
Vaild values	169					

Which attitudes and beliefs can be found among students without previous experience in intercultural competence development at the university?

The values are generally (in 3 subscales) above the mean value in the summarized GQ scale. The CQ dimension ‘Cognition’ shows much lower values and in comparison, only average values close to the mean value. (This can be caused by a general lack of knowledge and an uncertainty regarding the intercultural subjects.) It should be noted that the students have no systematic previous knowledge to the subjects of interculturality, so the weaker values are to be expected.

4.2.2. Results on question 2 – Quantitative part

Are there significant differences regarding the sociodemographic variables: age, gender, number of semesters and students' stay abroad regarding the interculturality?

The CQ-scale show statistically significant differences regarding the sociodemographic variables 'stay abroad' and 'number of semesters'. The CQ is significantly lower ($p<0.02$) in the group without experience with stays abroad (M=4,73, SD=0,75, N=169, df=167) than in the group with such experiences (M=5,02, SD=0,77). The CQ is significantly higher ($p<0.038$) in the group of the 1st semester students (M=4,90, SD=0,82, N=169, df=167) than in the group with the 3rd semester students (M=4,67, SD=0,61).

Are there significant differences regarding the sociodemographic variables: age, gender, number of semesters and students' stay abroad regarding the 4 subscales of the CQ construct?

The subscales show statistically significant differences regarding the subscale 'Motivational CQ' for variable 'Stay abroad'. The 'Motivational CQ' is significantly lower ($p<0.04$) in the group without experience with stays abroad (M=5,22, SD=0,91, N=169, df=167) than in the group with such experiences (M=5,55, SD=0,1.01).

Are there significant differences regarding the sociodemographic variables: age, gender, number of semesters and students' stay abroad regarding the 4 subscales of the CQ construct?

The subscales show statistically significant differences regarding the subscales 'Motivational CQ' and' Cognitive CQ' for variable 'Number of semesters'. The 'Motivational CQ' is significantly higher ($p<0.025$) in the group of the first semester students (M=5,44, SD=0,98, N=169, df=167) than in the group with the sixth semester students (M=5,09, SD=0,92). The 'Cognitive CQ' is significantly higher ($p<0.006$) in the group of the first semester students (M=4,07, SD=1,17, N=169, df=167) than in the group with the sixth semester students (M=3,59, SD=0,88).

4.2.3. Results on question 3 – Quantitative part

Which conclusions can be drawn from existing differences in interculturality for the organization of studies and the module 'Intercultural Pedagogy and Inclusive Pedagogy?

The CQ values were relatively high and above the mean in the sample and with it the trust in one's own competences. Students from South Tyrol (a country with 3 language groups) often live in inter- and multicultural contexts. That is a very likely explanation for the confidence in their own intercultural competencies. Nevertheless, the students show a lack of cognitive knowledge regarding intercultural subjects. Significant differences were shown regarding variable 'stay abroad'. As expected, the experience in the variable 'stays abroad' have a very positive effect on the intercultural skills. This instrument is well suited to gain positive intercultural experiences and should therefore be strengthened.

What conclusions can be drawn from existing differences in interculturality for the organization of studies and the module 'Intercultural Pedagogy and Inclusive Pedagogy?

Motivation and cognitive knowledge about intercultural topics are significant higher in the group semester of the 1st semester students. Possible explanations can be statistical distortions in the data, more general differences regarding the topic 'interculturality' between the student cohorts and more personal experiences in the group of first semesters with intercultural topics. This should be considered in the didactic design of the module.

Conclusion

In order to systematically improve intercultural competences, students should take advantage of the opportunity to spend time abroad, and to this end improve university counselling and existing opportunities. Real intercultural experiences have shown a positive effect on intercultural attitudes and beliefs. Such personal experiences with interculturality should therefore be strengthened in the module design. In order to improve intercultural competences within the module and in general, the variables motivation for intercultural exchange as well as knowledge on the topics and contents of interculturality should also be considered. Intercultural teacher training has a relevant significance: it is only starting from a correct approach to educational work in the school (and not only) that one can hope to spread a more and more necessary 'culture of coexistence'. The challenge foresees a change in reference paradigms with the aim of reducing the rate of ethnocentrism in our education system, where an integration process is not a one-way- solution, that calls on both majorities and minorities to question ourselves. Fiorucci, (2015) propose in other words an empowering teachers to operate a real 'cognitive decentralisation' by attenuating the level of ethnocentrism, which is the basis of their training and he use the words of Kenyan writer Ngugi wa Thiong'o that suggest to 'move the centre of the world' (Wa Thiong'o, 2000). According to Aminkeng A. Alemanji, (2018) especially for teacher it is not enough to be non-racist, they must be anti-racist. In this conception, the importance of opposing prejudice (non-racist) is not enough: proposing an anti-racist attitude, facilitates action where we actively oppose and fight against racism. For this purpose, the teacher's important job in teaching their curriculum and attuning to their student's social-emotional learning is also making sure, that the school community stand up to racism-each and every time we're confronted with the violence of discrimination and exclusion. As we can read on The Educator's Room, LLC™ (2016, https://theeducatorsroom.com/), dedicated to many educational issues, three points should be kept on mind: (a) See something, say something; (b) challenge curriculum that has blatant 'whitewashing' of historical events, moments, and people. (c) be an ally and educate yourself on systematic racism.

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Towards a communication model for university education

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Keywords: *Innovation didactics, Communication, Emotional dimension, Participation, Engagement*

Introduction

Learning as a student-centred process is a consolidated concept in contemporary literature. To this concept is associated the scientific debate about the redefinition of the role of university professors in terms of enlargement of their functions and skills to plan and manage the training process (Castoldi, 2016; Braga, 2017; Benadusi, Molina, 2018). The consequent changes are not only connected to the curricular level but involve the communicative sphere of the professor-student relationship, which is increasingly central to promote the effectiveness of the educational project.

The paper aims at studying the implications of these changes in the redefinition of the relationship professors-students and at identifying the key-components of a communicative model which differentiates didactic communication from other forms of communicative relationship (Spinelli, 2009).

A preliminary review of the Italian and foreign literature about innovative didactics, which recognizes the didactic communication relevance in higher education, is briefly presented in the first part. It shows that different theoretical and empirical lines converge on the identification of some communicative components: emotional dimension, participation and engagement. In the second part a case study is presented, discussing the results of a survey in order to analyze the role of communication and these components in the didactics according the point of views of the students. On the basis of the literature review and the case study' s analysis is possible to identify a specific model which allows professors to systematize and optimize the role of communication to support innovative teaching method.

1. State of the art: the role of communication in the higher education didactics.

As anticipated, the changes related to the redefinition of the role of the concept of learning and teaching are not only connected to the curricular level but involve the communicative sphere of the professor-student relationship in the higher education didactics. In order to promote the effectiveness of the educational project, the communication is increasingly central as an activator of the dimensions of participation, involvement and emotion.

Their strategic role is already studied theoretically and empirically in the linguistic and pedagogical field (Desideri, Tessuto, 2011; De Pablos Pons, Llorent-Vaquero, 2018; Taylor, Bovill 2018; Trentin, 2016). There are different strands

characterized by different theoretical frameworks, different approaches and very different methods. We will be focusing on those studies that recognize the central role of the relational and emotional dimension as a vital element of the learning experience, especially those that favour the importance of participative and engagement process. The first strand of research considers the centrality of the interaction and participation to innovate higher education didactics. The other one relates to the uses of ICT in didactics.

The research within the first strand relates to the pedagogic field, with inputs from the philosophical sphere. These studies emphasize the cooperation and collaboration aspect of the professor-student relationship or among students themselves. It considers didactic communication, based on the interactionist paradigm, as a system of meaningful interpersonal relationships centred upon the building of knowledge (Margiotta, 2014); or studies on the co-creation of curricula (Bovill, 2014) inspired by the concept of «ecology of participation» (Taylor, Bovill 2018).

Whereas the second strand includes studies on innovative didactics - mostly from a pedagogical approach combined with information technology - focused on the use of ICTs resources, analyzing the role, modalities, participation and engagement levels within ICTs environments (among others, Dyson et al. 2015; Martin, Bolliger, 2018). These studies focus both on the student point of view (Panciroli, 2018), and on the motivations and values of the academic staff (De Pablos Pons, Llorent-Vaquero, 2018), they highlight the crucial elements of innovative didactics taking place in hybrid environments, both physically and virtually, in a blended way.

Finally, we realized that marketing and organizational management studies are relevant in order to achieve our research goals since they focus on the engagement topic (Harmeling et al., 2017; Hollebeek et al., 2016; Brodie et al. 2013;), although they are a different field of study from the ones mentioned so far. However, we can include the most important findings in the educational field.

2. Method

An exploratory research involving two departments *(CORIS-Communication and Social Research, Sapienza* University, and *Philosophy, Social Sciences, Humanities and Education*, *University of Perugia*) has been carried on analyzing the balance of the communicative components discussed in the literature review. The project[5] explores different ways of planning, managing and implementing innovative teaching activities, the communication practices and the relationships among all the actors involved in the training process, through a survey addressed to students of the second level degree courses of *CORIS Department of Sapienza*, and in-depth interviews with university professors in the humanities and political-social areas of the two universities.

We briefly show the results of the survey involving 248 students enrolled in two Master degrees of *CORIS Department*. The survey aims at analyzing how the processes of change that involved the University are perceived by the students, recording their opinions and points of view about the role of teaching,

[5] The project has been carried out by Barbara Mazza (Principal Investigator), Floriana Falcinelli, Renato Fontana, Paolo Montesperelli, Silvia Cataldi, Cristina Sofia, Elena Valentini, Milena Cassella, Erika De Marchis. The students Ermira Boraj, Erika Di Furia and Marina Polito also took part into the group to facilitate the achievement of the cognitive objectives of the research and in consideration of the object of the research. For more information on the research design and the characteristics of the respondents to the survey, see Fontana and colleagues (2019) and Mazza, and colleagues (in press).

training (through the analysis of new and traditional didactic activities), role of the professor, relationship professors-students.We have selected two courses of communication to study the points of view of students who, for competence and thematic specificity, are more likely to use educational tools and methods in which communication has a priority role.

In this paper, we present results regarding the survey items useful to discuss about the communicative processes related to the didactic activities and the relationship professors-students: the level of satisfaction about the didactic style of the professors, the usefulness of the didactic activities and the elements which a professor should transmit.

3. The role of communication in the didactics: the point of views of the students

The first element we investigated was the students' appreciation of the didactic style of the professor by using with the Cantril Scale, which items refer to specific attributes desirable in each professor as the basis of each learning model, as shown in Table1. The students interviewed, by and large, appreciated positively the teaching style of the professors of the *CORIS Department*. 70% shows a medium-high appreciation against 33.1% of who declares no appreciation. In order to deepen our insight, we observed the distribution of each item of the Cantril Scale. As shown in Tab.1, the students appreciate more the Educating to the building of abstract thinking (27.2%), the Willingness of showing the immediate applications (26.9%), the Ability to listen to the needs (26.6%),and finally, the Interdisciplinarity of the topic discussed (26.5%).

TABLE 1. *The level of satisfaction about the didactic style of the professors. Values in %*

	Low appreciation	Average appreciation	High appreciation	Total
Articulating arguments in a clear way	32.8	40.9	26.3	100
Ability to actively engage students	32.8	40.9	26.3	100
Ability to simplify complex concepts	33.1	40.8	26.1	100
The willingness of showing the immediate applications	31.4	41.7	26.9	100
The interdisciplinarity	32.2	41.2	26.5	100
Educating to the building of abstract thinking	31	41.8	27.2	100
Ability to listen to the needs	32	41.4	26.6	100

source: our elaboration about data of the survey (2018)

As opposed to the elements that scored a less appreciation, which is: the Ability to simplify complex concepts (33.1%), the Articulating arguments in a clear way and the Ability to actively engage students (32.8%). However, by observing the total of Tab.1, it appears that the highest percentage relates to an intermediate level. By expressing an intermediate level of appreciation, we can argue that the student does not perceive the innovation and the usefulness of the professors' teaching methods.

Students were also asked to express their opinion regarding the different communication tools used in classroom by the academic staff, from a on a scale from 1 to 10, and to indicate the most effective ones as shown in Table 2.

The items that are more effective are the ones related to Skype meetings (66.9%), professor's social pages (63.5%), e-learning space (60.8%), the

professor's website (59.6%), the social media page of the training (58.9%) and the training course website (56.6%). Instead, all the others, do not go above the 55% of appreciation.

TABLE 2. *The usefulness of the didactic activities. Values in %*

	Low	High	Total
Institutional weblessons	46.4	53.6	100
Institutional email	48.2	51.8	100
Professor's website	40.4	59.6	100
Professor's social media page	36.5	63.5	100
Training course website	43.4	56.6	100
Training course social media page	41.1	58.9	100
Pages managed by students	44.8	55.2	100
E-learning space	39.2	60.8	100
Skype meetings	33.1	66.9	100

source: our elaboration about data of the survey (2018)

The highest rate of ineffectiveness is recorded by the 'institutional' tools like the institutional email (48.2%) and the institutional weblessons (46.4%), which are considered as obsolete and less efficient to build a relationship with the professor. The evidence shows how University students tend to appreciate more innovative tools to communicate that are entirely different from traditional ways of perceiving the student-professor relationship. We can argue that it is a consequence of the need to build, within the participative didactics setting, functional proximity that allows a continuous flow of information exchanges both formally (training course website or of the professor) and informally (the social page belonging to the professor or the training course). The students were given the possibility to express three keywords, that would describe those elements. The results described in Figure 1 show how students expressed Passion (31.6%), Competences (14.3%), Interest in the subject (12.1%) and, finally, Clarity (10.4%).

FIGURE 1. *The elements which a professor should transmit in addition to the curricular contents (the first keyword)*

source: our elaboration about data of the survey (2018)

The other words do not reach the 10%, and in some cases are near to zero, such as Dedication, Impartiality, Innovation and Humbleness, all at 0.4%. We can argue that the evidence supports our theory. The students declared that passion is the fundamental element within a classroom experience. Hence, we

can argue that a new concept of didactics is needed. A didactic that emphases the importance of the cognitive aspect as well as the emotional and relationship one. It is passion that, ultimately, allows the development of a trustworthy environment and a sense of belonging that are the starting points for a co-participated and enthusiastic learning experience. The second word choice, as shown in the figure, are again Competences and Passion, respectively with 19.7% and 14.5% of the total, with Availability (14.5%) and Interest and the subject (11%).

FIGURE 2. *The elements which a professor should transmit in addition to the curricular contents (the second key word)*

source: our elaboration about data of the survey (2018)

It is essential to mention how moving from the first to the second word; some words gain more importance for the students. Mainly, in the second figure, new words appear such as curiosity (totally absent from the first choice but at 4.4% in the second) and engagement (increasing from 2.6% to 4.8%). This last term is fundamental within the present study since it allows to underline how the involvement aspects, represented by an innovative communication model, are perceived by both actors involved. Considering the third keyword, we notice that the most mentioned are: Competences (28.5%), Availability (12.6%) and Interest in the subject (17.8%).

FIGURE 3. *The elements which a professor should transmit in addition to the curricular contents (the third keyword)*

source: our elaboration about data of the survey (2018)

By observing the tag cloud of the second and third words we notice that the students' attention moves towards a more relational dimension of teaching: in fact, beyond the word Competences, we observe terms suggesting a relationship dimension, to an involvement of the learning process (for example Involvement, Availability, Empathy).

In conclusion, the simultaneous analysis of the response percentages enables to make precise considerations: firstly, we must highlight that, in the passage from the first to the third word, no more words like Passion, Clarity and Reasoning ability, instead in the third cloud of words new words appear such as Honesty, Objectivity, Will and Hope; secondly, it must be specified how some words, instead, are still indicated by the students after the first, even with higher percentages as in the case of Skills (from 14.3% to 28.5%), Availability (from 3% to 12.6%), Interest in the subject (from 12% to 17.8%), Applicability of the contents (from 5.6% to 9.3%).

Ultimately, therefore, it is clear how the students consider that the knowledge that academic staff convey during lectures need to be related to passion, interest and skills. Above all, the central element of the whole learning process must be based on the explanation and understanding of the applicability and usability of what is happening, to underline the importance experiential learning. By emphasizing words such as trust, passion, empathy, involvement, honesty and enthusiasm, students confirm that the relational and emotional dimension is as central as the cognitive dimension. The feeling of being in a community and a sense of belonging, eventually, empowers the individual as well as the learner.

Conclusions

Based on the literature review and the case study analysis is possible to identify a specific model which allows the academic staff to systematize and optimize the role of communication to support innovative teaching method.

As a result of this study we have develop a model which highlights four different levels of using communication in the innovative didactics: formative interaction, learning participation, University education involvement, and co-creative learning. These levels could be sequential or could indicate different stages to use depending on the characteristics of the classroom and the educational objectives. Like every model, its level of abstraction is such as to provide methodological indications which can be adapted to different contexts.

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Narrative Guidance as a Tool to Enhance Resilience of Students

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Keywords: *Narrative guidance; Resilience; School guidance; Guidance research*

Introduction

Stories are constituent parts of everyday life: we are pushed by thousands of narrative stimuli coming from narrative agencies (television, video-games, news, etc…). When used self-consciously, stories can become extraordinary tools enabling to put in order and to give sense to our experiences, to imagine the future and face choices, to build our own identity and that of the group of which we are part. The narrative guidance is a method for the self-development of people and the development of guidance competencies for communities, using narration and stories. Narrative guidance is part of the orientation training models, i.e. those that aim to develop orientation skills instead of accompanying the moments of choice.

1. State of the art: the narrative guidance as a tool for empowerment

It takes its name from its use of narratives and stories (novels, oral stories, movies, audiovisuals, etc..) as materials to facilitate the processes of identity building and self-development of skills, which allow self-orientation. Concretely, a path of narrative guidance is characterized by a 'rhythm' dictated by a novel (a story, a film) or by several stories 'sewn' together that are read aloud, usually by the conductor. Reading is interspersed with activities of various kinds: self-reflection, mutual stimulation, memorial recovery, planning, explicitly autobiographical and not, individual, in pairs and in groups. Usually after the activities the results (or what has been written) are socialized, and this is a practice that has a fundamental importance to enhance effects and learning through listening to peers as well as the explicit or internal 'dialogue' with their points of view, choices, memories, decisions, projects.

The method of narrative guidance responds - in a new, often creative, way - to the needs of people who once had to exercise few fundamental choices, placed in socially defined moments, whereas now are faced with the recursiveness of choices and subjectively defined projects (Batini, Del Sarto, 2005; Batini, Giusti, 2009). Within the framework of the narrative guidance, stories constitute an important instrument of facilitation: not only, as some claim, fluidifying autobiographical procedures that allow the explanation, interpretation and remeaning of the history of a subject (however necessary), but also as orientation tools. Narratives, in fact, are able to produce advantages through the sharing and negotiation of meanings that trains both empathic and interpretative skills; by stimulating the imagination and the habit of constructing hypotheses and schemes of actions for the future; developing the ability to take on different points of view; through the development of strategic skills. All this is made through direct and

metaphorical procedures as well as by using a constitutive dimension of thought (narrative thought). It will be clear how training in foreshadowing and situation management, the imagination of different possible paths, the hypotheses about different ways of facing and overcoming obstacles are in direct connection with resilience. The processes through which we tell and define ourselves, we attribute meaning to our own experience and that of others, we attribute value to events and processes, we imagine and plan the future (translating projects into actions) are eminently narrative processes that take place, for the most part, at a pre-reflective level (Smorti, 2007): for this reason it can be extremely useful to develop narrative skills and to use narratives to (re)construct the own identity and (re)plan the own future with strong components of intentionality and reflection. As is well known, it is not possible to choose all the experiences and challenges that one faces in life: many events are random and unpredictable and not all of them are positive. The only thing we can decide directly, in those situations, is how to deal with them, how to face adversities and difficulties that, however, will arise. The mental disposition to face adversity in life is called resilience, and it is the ability to face the most difficult moments, to overcome them and to get out somehow strengthened.

2. Resilience: the psychological dimension fundamental for success at school and in life

Resilience is the ability to face the challenges of life, including the resources to be activated to rediscover a positive dimension (Walsh, 2003), and is therefore defined as the positive adaptation of the subject, meaning that it is the ability to implement processes of positive reorganization of the existence, following critical experiences (Ius, Milani, 2010). The resilience factors are potentially modifiable and therefore can constitute areas of interest on which to direct effective prevention efforts. At the school level, resilience plays a decisive role in coping with small and large failures (from a bad vote in a question to a rejection), both for purely educational issues and in order to manage social affairs and life. The promotion of resilience in educational contexts therefore encourages the processes of empowerment, inclusion and socialization, cooperation and solidarity, as well as the participation of individuals, groups and communities. Resilience is closely linked to orientation: The five dimensions considered essential and representative of the active and adaptable nature of dispositional employability are: openness to job change, career resilience, career proactivity, career motivation and job identity. Resilience is therefore an essential dimension because resilient individuals tend to have positive self-assessments and positive visions of life and this makes them more likely to act and persevere in the pursuit of their goals. Resilient people tend to think that they can cope with difficulties and achieve career goals that are set with greater confidence and consistency.

The narrative guidance approach can become in this sense a useful tool for the enhancement of resilience as the use of narrative material mobilizes different cognitive processes. Brain processing of an element of narration includes to understand the intentions, goals, emotions and other mental states of the characters, what is defined as a process of mentalizing that allows to relate with others. The identification and comparison with the characters of stories allows the subjects to identify other possibilities, other paths, other reactions by similarity or difference, reviewing alternatives and possible paths. The comparison and redefinition of the personal story through the stories of others could therefore allow an empowerment of cognitive dimensions such as coping and resilience.

3. Methods: the experimental path implemented.

We present in this section the results of path implemented in Tuscany in many schools and many provinces. Those paths were implemented inside the curricula of the students, as trainings for guidance in the choice of the secondary second degree school. The participants were students from lower secondary school (second-year classes) from the Tuscan territories of Valdarno, Valdichiana Valdelsa and Valdicecina. The data are in the process of being analysed and here we present a preliminary analysis with the following numbers: in the Valdichiana area a total of 390 students (202 in the experimental group and 188 in the control group), in the Valdarno area a total of 168 students (91 in the experimental group and 77 in the control group), in the Valdicecina area a total of 300 students (156 in the experimental group and 144 in the control group), in the Valdelsa area a total of 289 students (139 in the experimental group and 150 in the control group). While the experimental classes underwent a narrative guidance, the control classes (parallel to the experimental ones, i.e. where there is a similarity of objectives and didactic practices) went on with the normal didactic development. The project included workshop activities of training guidance with narrative methodology, along with teachers in charge, narrative reading aloud in class, with the consequent administration of activity cards for individual reflection and the sharing and socialization in groups. The specific aims of the workshop courses undertaken were aimed at encouraging: the analysis of individual resources with respect to the school curriculum (skills, competences, interests, values, strengths, constraints, limits...); the development of guidance skills through narration: listening, situational projection, personal and social balance generated by the narrative stimulus; the stimulus to reflection and externalization of opinions, constructive confrontation in the social field to promote self-assertion and problematization. During the class meetings, the objective was pursued at the same time to act directly on the outgoing orientation of the students and to transfer to the participating teachers the skills, methods and tools for the autonomous continuation of the orientation paths and of a curricular guidance didactics.

Guidance teaching focuses on the learning objectives (in terms of skills) of the students and takes into account their needs also in terms of identity and planning of the future and, at the same time, it takes into account the strong guidance needs (not only from a professional or formative point of view but also an existential perspective) that nowadays subjects need. This need postulates the emergence of skills to be delivered to children, from which the school cannot be exempted: skills of choice, selection skills, self-directed skills, design skills, research skills, selection and management of information. The main objective of the school then becomes empowerment, meaning the process through which a subject owns his/her life and choices.

4. The path: examples of activities of narrative guidance

Some of the examples of the stories and activities connected: ‘In the sea there are crocodiles’ by Fabio Geda, a path that aims to reflect on the relationship with others and on the identification of the proprilimites, in function of the confrontation of difficult situations and the planning of future objectives. *The strange case of the dog killed at midnight* by Mark Haddon, a course that aims to reflect on the relationship with others and the identification of their own

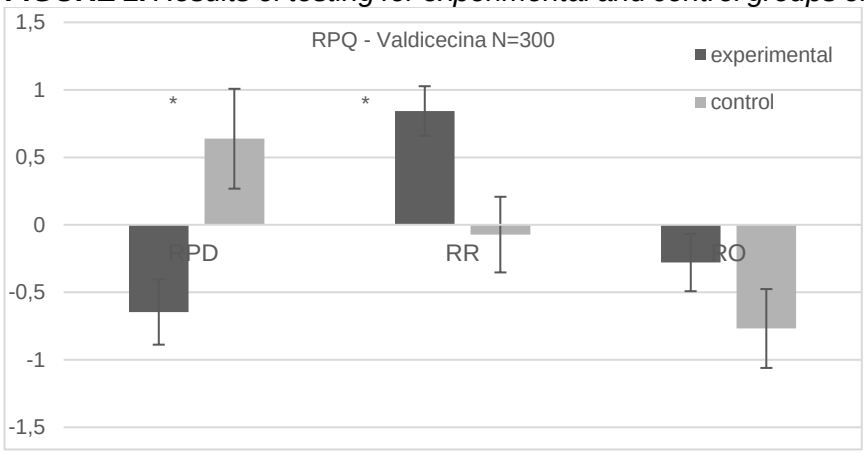
limitations and strengths, depending on the facing of difficult situations, the design of future objectives and the exercise of control over their lives. 'The Harry Potter Saga' by J.K. Rowling, a path that aims to reflect on personal characteristics in terms of strengths, values, interests, limits and imagination and self-design in the future starting from some narrative stimuli of the first novel of the fantasy saga. The tool used to test children before and after the activities is RPQ (Resilience Process Questionnaire) (Laudadio et al. 2011), a tool for the self-assessment of the processes of resilience, able to detect the ability of the subject to rise after a trauma, overcome it and, possibly, use its 'positive' aspects.

The tool, consisting of 15 items on a 5-point Likert scale (not at all agreed - completely agreed), is divided into three dimensions, each of which brings together different skills and resources in the management of traumatic events: Reintegration with Loss or Dysfunctionality (RPD) which refers to the inability to overcome traumatic events and not to have the strength to face or accept them, and the experimental group goes down, as one would expect in relation to an emotional growth; Resilient Reintegration (RR) which is associated with a strong resilience capacity of the subject, then functional coping strategies and high levels of awareness and acceptance of life even in relation to unpleasant aspects, Return to Homeostasis (RO) which represents the person's attempt to cope with traumatic events to restore the state prior to stress without an individual growth or development of resilient characteristics. In order to obtain the effect size, the first result was subtracted from the second one of each participant and then it was carried out analysis by ANOVA.

5. Results: the benefits of the experimental groups

The results in Figures 1, 2, 3, 4 show the increments (or possible decrements) of the two groups compared for each undersize of the RPQ test.

FIGURE 1. *Results of testing for experimental and control groups of Valdicecina*



The results show a positive and statistically significant trend ($p<0.05$) as regards the fundamental dimension of the test, i.e. the resilient reintegration, in all the areas where the experiment took place. In some cases (Valdicecina, Valdelsa and Valdarno) another fundamental dimension shows a significant decrease for the experimental groups, i.e. reintegration with loss ($p<0.05$), It is a dimension for which, if there is an improvement, a decrease in scores is to be expected. Before the analysis, any differences in the starting scores at the baselines were checked. There were no statistically significant differences between the groups in terms of incoming scores. This suggests that the differences seen

at the exit are to be attributed precisely to the only variable that has been substituted among the groups, i.e. the narrative guidance paths provided to the experimental groups.

FIGURE 2. *Results of testing for experimental and control groups of Valdichiana*

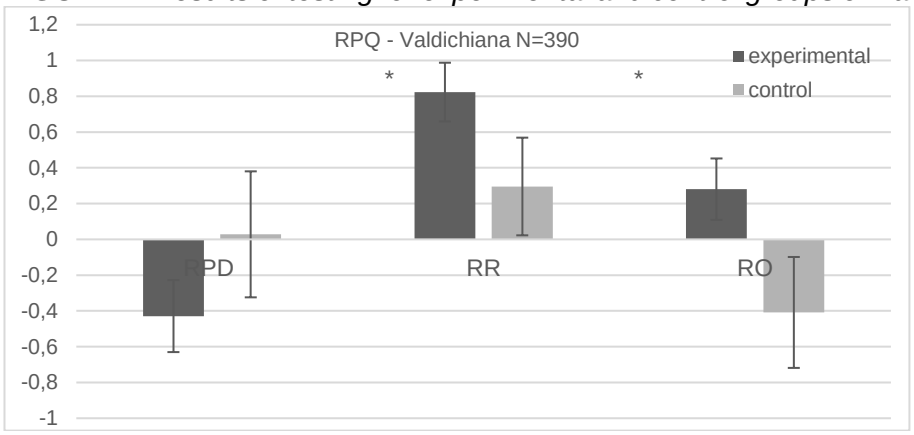


FIGURE 3. *Results of testing for experimental and control groups of Valdelsa*

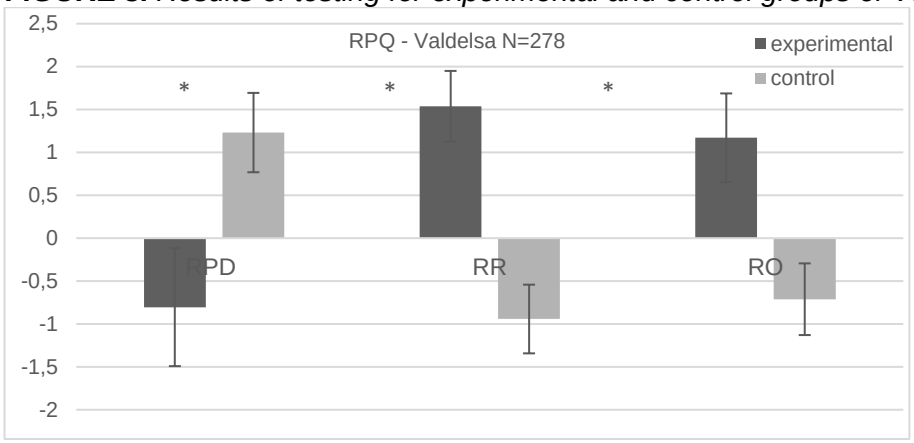
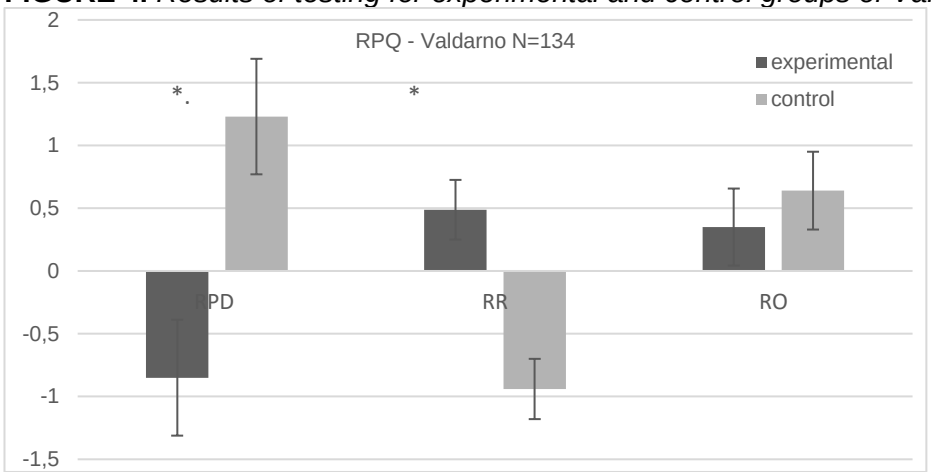


FIGURE 4. *Results of testing for experimental and control groups of Valdarno*



Conclusions

The process of identification that occurs during reading may have contributed to the increase in the size of self-development. Reading is a complex

experience, in which different processes and functions come into play: the processing of linguistic information and its comprehension, but also affective and emotional dimensions (Lumbelli, 2009) that reading brings into play during the process of decoding the meaning. Narrative then works and is built on different cognitive levels (Nelson, 2003). Brain processing of an element of narration involve the understanding of the intentions, objectives, emotions and other mental states of the characters, what is defined as mentalising (Frith & Frith, 2003) because a story is the representation of events, which are guided by intentional behaviour of characters with unique objectives, in imagined environments that can refer to the real world (Marr, 2004). This process leads to the formation at a cognitive and psychological level of representations also at the level of mental images, of textual information that are called situation models, which are built through various dimensions, such as time, space, the intentionality of the protagonists, including their emotional state (Ferstl et al., 2005). Thus, results show all those effects elicited from the paths.

An important contribution is given, however, by the proposed activities that allow to make the process of identification explicit, lead it by the hand to reflectivity to reflect on their own dimensions. Thus, for example, the process that each student was able to carry out - when he/she was invited to identify the external obstacles encountered in his/her life in order to subsequently draw from them the resources that those obstacles allowed (or forced) to develop - has resulted in a sort of insight contributing to a re-evaluation of his ability to cope with and a positive re-signification of his/her life.

The comparison with others is, in this sense, valuable: it allows us to identify other possibilities, other paths, other reactions to similarity or difference, we review alternatives and possible paths. Moreover, as for narrative stimuli and activities, the path has a clear perspective dimension: it starts from the analysis of past events and crucial junctions to reach, gradually, the design dimension. In this sense, the possibility of confronting oneself with a group of peers with whom to share dimensions of analysis and self-planning, allows the subject to explain, to put into words the personal story (and the narration declined to the future), providing a greater feeling of definition, of path, of mastery. In a nutshell, a process of enhancement has begun.

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Exploring the Epistemology of the Implicit Curriculum

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Keywords: *Teaching Methods, Learning/Teaching, Implicit Curriculum, Strategies and Approaches, Observation Tools*

Introduction

The research project on the epistemology of the implicit curriculum arises from a practical need, linked to the peculiarity of the context in which we teach, but also from the notion that competences not strictly related to the cognitive are a fundamental investment for learning and teaching.

Scuola-Città Pestalozzi is traditionally a community school (Mariani, 2018). Over the decades, the term has taken on different meanings in association with the theories and research in the pedagogical and didactic fields. This vision brings with it a concept of class management, a didactical attitude and a mediation of both educational and relational communication. Scuola-Città Pestalozzi - being an experimental school ex. art. 11 DM 275/99 - selects its teachers through public announcement, and their placement is based on qualifications and interviews. One of the candidate's requirements is the knowledge and full acknowledgement of some fundamental points of the Professional Agreement that establishes the implicit curriculum of the school.

In recent years, due to generational issues, there have been changes within the teaching staff. This, while bringing on one hand new stimuli and new ideas, has required, on the other hand, the need to structure tools for observation in order to create a shared platform of modes and attitudes. The authors of this contribution, as co-coordinators of the school's project, are frequently committed facing difficulties that can be traced back to the implicit curriculum, but which are difficult to describe and substantive.

We decided to base our research project on the comparison between what we believe and affirm and what is actually being implemented: everyone at our school agrees with the manifesto and the pedagogical paradigms of the implicit curriculum, however each one of us carries out the principles in a different way. Our research question is to create a tool that can detect and give a description of the set of actions and strategies that support the methodological teaching choices more directly oriented to learners and that go under the name of 'implicit curriculum', At the same time, to bring out a reading of the learning/teaching process in terms of this implicit curriculum.

We have chosen the 'time' as a fundamental variable that stresses and affects the nodes of the implicit curriculum, as it allows to give consistency to the implicit curriculum itself, to bring out single aspects in a tangible and comparable way, and, therefore, to make them explicit.

1. The implicit curriculum

The implicit curriculum is defined by interacting with the main areas of research and development of pedagogy and teaching. It originates within the multiple approaches to the concept of 'curriculum' that led the school in the second half of the last century. Needing to identify a line of development for what appears to be a polysemic and generative construct, we can trace it within a 'hot' vein that has crossed the sciences of education with theories of the curriculum, processes of definition of the profile of the teacher - on one hand - and the learning environment - on the other - placing the emphasis on aspects that the more technical and procedural systems have tended not to consider.

According to a definition of Stenhouse (1977), the curriculum helps to communicate the essential principles and connotations of an instructive proposal in a form that makes it open to critical analysis. The implicit curriculum – defined by some authors (Seddon, 1983: 66) «hidden curriculum» – refers to «the learning of attitudes, beliefs, values, hypotheses, everything that could be expressed in terms of rules and rituals». With his distinction between «Curriculum 1» and «Curriculum 2», Baldacci highlights the coexistence of two planes on which the teaching / learning process develops (Baldacci, 2018).

These aspects need specific attention, which lies between the explicit and the implicit: they cannot be defined separately from the more purely instructive ones, within which they remain implicit, as they are expressed through the daily didactic action, but it is essential that they emerge from an exclusively undercurrent dimension to characterize the dimension of meaning and system within a holistic approach to the school context and to the curriculum.

More recently, as extensively explored by the OECD's Innovative Learning Environments project, the concept of 'Learning Environment' has recovered the aspect of the implicit curriculum as its own essential plot, as such is configured as a field of action for the professional community. In the development of studies on the learning environment, in fact, the strategic level of action is that of the scholastic institution (Marzano, 2003), with its character of contextualised system. In this sense, the subject of the implicit curriculum is intertwined with that of the teacher's' professional profile.

Starting assumptions of the exploratory study presented here are therefore that the implicit curriculum is the matrix of the learning environment of the scholastic institution and that the teaching profession has an essential trait for the definition as such of the professional community of that same school. Castoldi states:

> Teaching is not done with good intentions nor with insubstantial affirmations, but rather is constructed first of all from the space-time, organizational and environmental context within which the training relationship takes place; from those elements of the so-called 'implicit curriculum', superordinate to the action of the individual teacher, which define the possibilities of management of the teaching / learning process. (2011: 1)

2. The case study: the implicit curriculum in power and in progress

The aim of the research is to investigate the actual implementation of the principles underlying the implicit curriculum of Scuola-Città Pestalozzi. How much the practices linked to visions of teaching / learning according to an authentic education correspond to ways and attitudes that are almost intangible: the empathic relationship, the maieutic dialogue, and, above all, the use or rather the consideration of the use of time. For new teachers, entering our school

always induces a strong disorientation. The new teachers are accompanied, for the whole school year, by a tutor who supports both the didactic and the relational aspects.

We have thought carefully about what could have been the causes of the difficulties and, sometimes, of the manifested attitudes that did not coincide with the professional pact they had accepted. The tutor has a series of observation tools, both direct and indirect, but despite this, we continued to elude the crucial point of the matter. What we present here are the partial results of a research whose objective is the formulation of new tools with new observation indicators for the tutor. The work sought consistency between the professional agreement that represents the foundation of the implicit curriculum and its actual implementation in the classroom. The methods chosen were the closed-ended questionnaire and the case study.

This research starts from the assumption that the practices linked to visions of teaching/learning that arise from an authentic education, from a democratic vision correspond to other practices that remain hidden in the theoretical frameworks of some theories of learning (Mariani, 2018). The empathic relationship, the co-construction of learning, collaborative learning, maieutic dialogue, and, above, the use of time are all methods often formalized in protocols without taking into account the actions that give them meaning. All of this does not end in practice, but it is founded only if supported by a way of managing the whole educational process. It finds meaning if there is an implicit curriculum that provides tools, time frames and methods that give value to the process.

The state of the art of the research is presented here. The project aims to create observation and measurement tools to define the implementation modalities of the implicit curriculum of Scuola-Città Pestalozzi according to the guidelines of the school community.

The first chosen research method was the correlation between the theoretical acceptance of the professional agreement by teachers of Scuola-Città Pestalozzi and the observing participation of a team of teachers in a class for a case study, which itself was chosen as a methodology for its adequacy as a tool capable to provide useful information in order to verify both the consistency and the validity of the actions of the intervention. The independent variable taken into consideration is ‘Time’ on a two-level reading: the time the teacher dedicates to the relationship and the time devoted to teaching, and the consequent correlation between the two; the time of the children, as recognized by the teacher, and measured in time for speech, time to request rest, time for silence.

We believe that a statement on which Scuola-Città Pestalozzi’s philosophy is based, is the ‘wasting time is gaining time’ of Rousseauian memory. This is the moment of crisis for the new teachers of our school: having to choose to become a different teacher, who thinks and acts in a different way from the teacher they have been up to that moment. Bringing the flexibility of modifying the educational project without losing sight of the focus that created it. Learn to listen to the students' sayings and unspoken words. Change perspective and understand school without haste and without chasing after something that is based on adulthood and not on childhood or pre-adolescence.

As already mentioned, the work included two tools and two phases that involved, respectively, the entire staff and two teachers chosen in a functional manner for the purpose of the research. The first tool was a close-ended questionnaire aimed at investigating the sharing of the principles of the implicit curriculum of the school. The questionnaire was administered to all the teachers of Scuola-Città Pestalozzi, including long-time teachers and new teachers, and preceded, temporarily, the second phase of the research.

The school board is composed of 30 teachers, 17 of primary school and 13 of low secondary school. Among these, 21 are senior professors and 9 junior teachers equally distributed on the two school levels.

TABLE 1. *Questionnaire*

Questions
1.How much time do you think of leaving the children to express their thoughts during the lesson
2 - How much time do you use forms of collaborative and / or laboratory work in your teaching activity
3 - How much time do you think to dedicate to the mediation of conflicts between pupils and to negotiation
4 - In what percentage, on the total lesson time, do you think you use the individual work
5 - How often you raise your hand to call silence instead of a verbal recall
6 - How often you change your teaching action based on the stimuli you receive from children
7 - How much time do you think you can devote to the one-to-one relationship with the students of your class
8 - How much time you spend sharing ways, tools, verification and evaluation results with your students
9 - How much time you spend, every day, to go over what you did and think about it (I think about it)
10 - How effective you think the explanation / acquisition of the contents according to a transmission method
11 - How effective do you think the discovery / construction of contents is according to an inductive method
12 - How much you take to devote time of your lesson to the reorganization of the classroom materials

TABLE 2. *Observation items*

observation objects:
word time (adult / student)
individual work / collaborative work (work proposals)
time dedicated to conflict mediation and negotiation
time to ask for silence
time I do alone because I know what I have to do (materials distribution, canteen, morning reading / reception) (internal bargaining for each class)
free time
how many times in the teaching action the teacher goes where the children take him
individual adult / student relationship time (attention to the 1 to 1 ratio)
time for the construction of the learning / time for the transmission of concepts
time for sharing verification tools
time for reflection / think again

For the second phase the case study methodology was used because it was considered the most effective research strategy for the nature of the unit of analysis. A class observation was carried out by a former Scuola-Città Pestalozzi teacher according to a previously constructed observation grid. The choice of the observer was dictated by the observer's competence on how to implement the implicit curriculum of our school. The presence of an external observer is not a variable to keep into consideration as our school welcomes about 600 external observers who take part in lessons every year.

The third grade was chosen as the case study for the characteristics of the team, in particular for the presence of a senior teacher (ST), with more than 10 years of experience at Scuola-Città Pestalozzi, and a junior teacher (JT), with only one year of experience at Scuola-Città Pestalozzi.

The analysis of the results showed a particular interest mainly in relation to some items where the time variable was, more markedly, put under stress. Below are the comparative graphs of the observation, representing the concrete action, and of the questionnaire, representing the idea of the implicit curriculum.

Analyzing FIGURE. 1. It is possible to conclude that the senior teacher (from now on referred to as ST) has a much lower need than the junior teacher (from now on referred to as JT). From FIGURE.2. the modality of the call of silence and its infrequent necessity seems implicit in every teacher.

FIGURE. 1. *Request for silence- total analysis of the week per teacher*

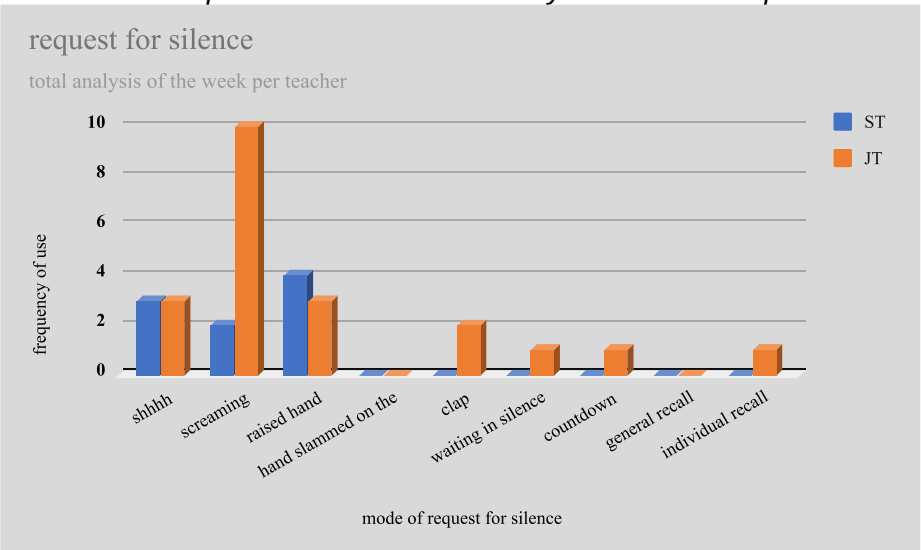
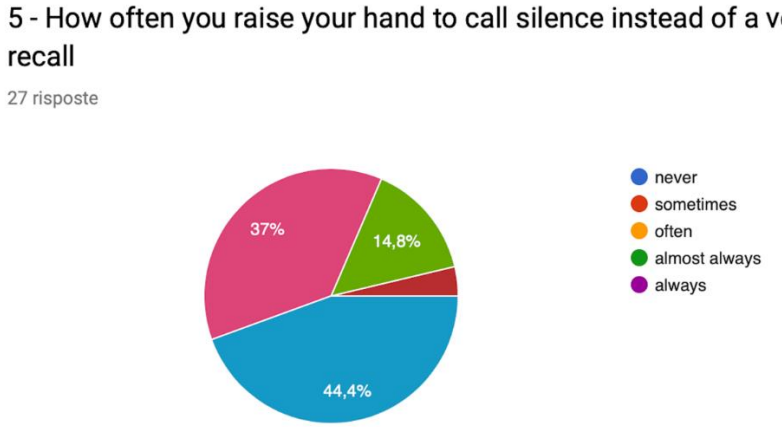


FIGURE. 2. *Item 5 from the questionnaire: How often do you raise your hand to call for silence rather than asking for it?*



The reasons for this discrepancy, in the case study, can be traced on the one hand to an explicit educational pact shared by ST and the students and on the other hand by ST's listening to children's times, from work stoppage to moments of fatigue or of curiosity for ideas and comments.

It is in this second part that we put stress. The time of the children and of the students in general, the time of listening skills, the time of attention and the time of interest cannot be but listened to by the teacher. All of this is part of the ability to observe and accept the class group and modulate its educational intervention based on feedbacks.

The continuous necessity of JT to recall the silence seems to arise from the incapacity to accept children's time, presumably combined with a difficulty in not ending the didactic project it had prepared. Flexibility and modality of modification of the educational project are very involved in this variable. In the following graphs this discrepancy between ST and JT is evident.

It can be clearly seen from Figure 4. that no teacher has selected the 'NEVER' item, while it is clear to the observation that, in new teachers, this modality has not yet been adopted.

Surely experience is a determining factor in order to fully acquire a new way of facing the teaching-learning process. But we believe that the attitude and

reflection by new teachers around their own concept of time is a necessary condition for being able to undertake a path of change in teaching and the relationship with the discipline and with its learning.

FIGURE. 3. *item: Consistency between work design and implementation*

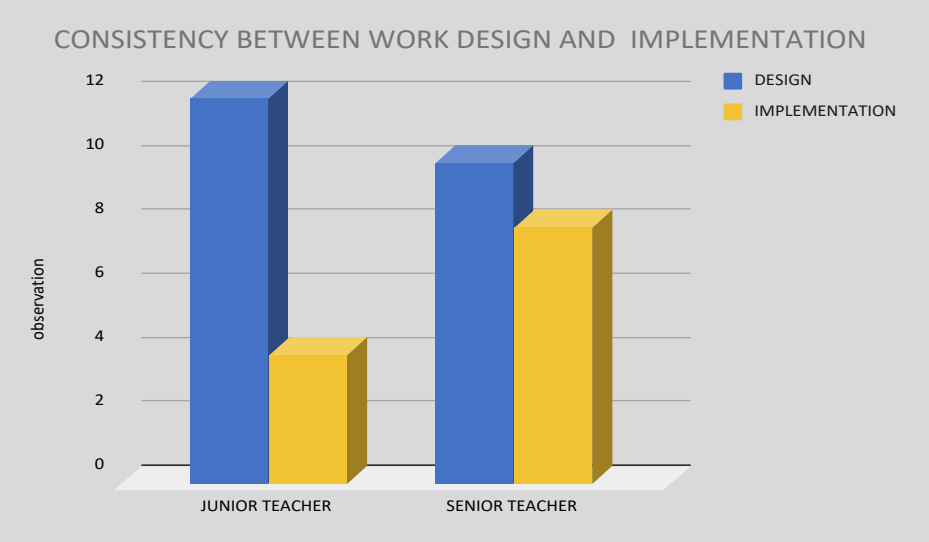
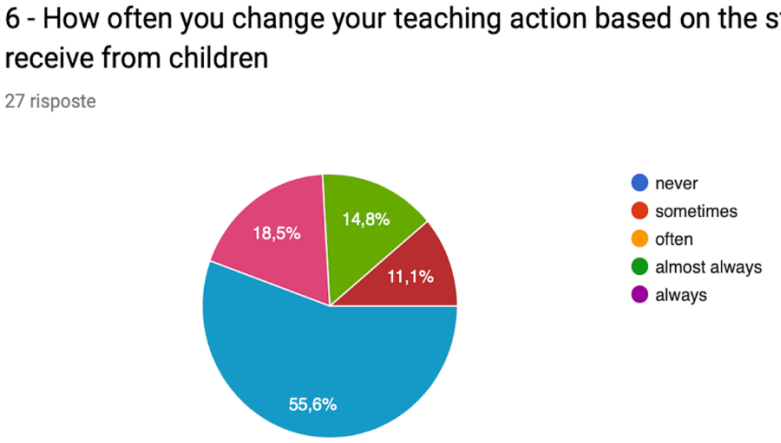


FIGURE. 4. *item 6 from the Questionnaire: How often do you change your teaching action based on the feedback you receive from children?*



3. Criticality and ex-post methodological observations

In the restitution, the observer (from now on referred to as O) highlighted some criticality among which the most significant were: The unit of time covered all the modalities but lost some very important ones in this school. The teachers observed gave some information on the children to O. Both teachers observed had the need to define the characteristics of the children with O. It was noted in particular how ST pointed out positive attitudes of the children while JT focused on problematic behaviours. The semantic structure of the observation grid has needed revision in the course of observation in order to obtain a greater definition of the observed behaviour. The object of observation has not been changed.

O reported that from his observation there are differences between ST and JT, with particular importance to:

- frequency of request for silence and frequency of request for silence through hand raising.

- attention to the level/moments of weariness in the children
- time for individual relationships (the more you are aware of what you are doing the more you allow yourself to have a one to one relationship)
- correlation between calls for silence and child weariness and flexibility to agree to modify the project (decrease in the actual teaching time)
- relationship with the class group and with the individual
- measuring time for speech

Conclusions

The research, which was born as a response to a real need, confirmed that the difference between what we do and what we think, between what we do and what is stated, concerns the use of time in the didactic action and is influenced by professional experience. Time management turns out to be more consistent with the requirements of the pact for the professional development of the experimental schoolteacher, when practiced by teachers with a longer teaching experience at Scuola-Città Pestalozzi.

Nevertheless, some of the practices observed (i.e. time of speaking), reveal a remarkable correspondence with traditional models of teacher/student interaction, also for an expert teacher. The proposed tools (questionnaire and observation grid), properly revised, can be adopted for periodic mutual observations, in order to redefine and implement the implicit curriculum of professional community of the school.

The research has brought to light the need to review the observation and ongoing evaluation tools for tutors of the new teachers, as well as the need to explicit and share attitudes and parameters for the variable in question.

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Rethinking Work-Related Learning Internship: Student's Voice and Perception

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Keywords: *Work-Related Learning, Student Voice, Partnership between School and Enterprises, Learning as Becoming*

Introduction

One of the ways in which the school can commit itself to redesigning teaching approaches is represented by the experiences of School-Work Alternation (SWA) (Batini and De Carlo, 2016; Fedeli, Tino, 2017; Gentili, 2018). Work-related learning experiences were introduced as a voluntary experience in South Tyrol's secondary schools as early as 2010 and have developed into a pedagogical experiment appreciated by students that offers space for experience, and for teaching and learning that encourages reflection and investigation of the potential of new forms of educational innovation aimed at addressing the social and cultural challenges associated with the modern age (Wallnöfer, Zadra, 2019).

Work-related learning experiences offer a valuable ground for observing the changes that are taking place in the educational system within a universe of practices located in social and cultural contexts. Work-related learning challenges the traditional understanding of learning. It blurs the boundaries between formal education and informal learning at work and relies on a partnership model involving interaction between schools and enterprises (Bertagna, 2016; Salatin, 2018). In this way secondary school teachers and students have been involved in a process of transformation with regard to roles and practices.

SWA affords learning opportunities in the context of work practice from which knowledge can emerge. These opportunities can be found through participation in work activities that enables students to develop knowledge, skills and habits, and is a method of learning for which Hodkinson, Biesta and James (2007) use the metaphor «learning as becoming».

This research project addresses the workplace environment by considering the environment outside the school as a privileged partner of the educational relationship, enabling the learning process to expand in terms of new forms of meaning.

1. Understanding work-related learning as a process of becoming.

SWA is defined as a methodology within the secondary school that is able to respond to the need to create more and better opportunities for openings and transversal links between education systems, work contexts and civic society (Berzog, 2008; Tino and Grion, 2018). In fact, the international discussion on work-related learning experiences offers numerous reflections on their formative potential, not relegating it to a simple orientation process or to a means of encouraging extracurricular openness (Lampe, 2015; Gessler, 2017).

This research aims to investigate, through the voice of the students, a theoretical perspective on which the experience of working outside the school is based, enhancing the perspective and role of the students as important stakeholders who are able to contribute and give shape and meaning to their

experience. The project refers to socio-cultural theories of learning which consider learning as being embedded in interactive practice and in contexts (Rogoff and Lave, 1984; Rogoff, 1990).

Additionally, the cultural approach introduces us to the concept of learning as becoming in a work experience context which can provide a rich understanding of how this type of internship works in terms of its social and cultural practices. In a particular way this cultural approach specifies the understanding of learning overcoming the distinction between individual and social learning through the Theory of Learning Culture or Cultural Theory of Learning (Hodkinson et al. 2007). The approach combines elements of situated learning with elements of Dewey's philosophy of education, particularly the notion of embodied construction (Dewey, 1938). The process of learning depends on «then nature of the learning culture and of the position, habitus and capitals of the individuals, in interaction with each other in their horizons for learning, as part of a field of relationships» (Hodkinson et al., 2007: 41). These authors use the terms of Bourdieu's habitus and filed and the concept of 'learning as becoming' to obtain a metaphor that allows us to conceive of learning in a more holistic way. This means understanding learning from two different perspectives: the learning of the individual and that of learning contexts. Therefore, we look at learning as an ongoing process, conditioned by the history of the individual and by the history of the context. Among the elements that the authors consider important for work-related learning experiences are the position, disposition and actions of students and tutors, the location and resources of the context, the relationship between learners and tutors, the school culture and social and cultural values and practice. Learning as becoming refers to the multiple learning opportunities of each situation which depend on the nature of the learning culture, the habitus and the capital of the students. Within each situation, we can learn. This is done, through the processes of participation and the (re)construction of our own habitus. In these processes, what is learned can be modified as it becomes part of the person. The same applies to the development of complex skills or work practices. «Thus, learning can change and/or reinforce that which is learned and can change and/or reinforce the habitus of the learner. In this way, a person constantly learns through becoming and becoming through learning» (Biesta, et al., 2007: 41).

2. The research project

2.1. Methodology and methods

This research is part of a wider research project on workplace-related learning conducted in the German speaking secondary schools in South Tyrol. For this part of the research data are generated through narrative interviews with 20 students; through portfolio reflections kept by the students and through shadowing observations gathered by the researcher during the student's internship at the workplace. Each student had taken part to a two-week internship in several different workplaces using a portfolio as a reflective tool and being supported by the school tutor.

The narrative interviews with the students reconstruct the essential factors that from their point of view had made their experience relevant in terms of the process of learning and becoming. Unlike a quantitative questionnaire, narrative interviews, due to the contextual link of the narratives, allow interpretative assumptions which not only permit the researcher to focus on a given phenomenon but also foster the opportunity to frame it in a sequential analysis in a relationship between the whole and the individual parts and to overcome

thoughtless and undifferentiated interpretations through an attitude of suspension (Kruse, Schmieder, 2014). Shadowing is a form of participatory observation that differs from stationary observation (Czarniawska-Joerges, 2007). Shadowing has the meaning of following like a shadow: the methodology, in fact, provides that the researcher follows the student in his activities during the internship, using his own description of the activities of the observed subject as research data. The researcher must record the actions taken and the experiences lived, capturing them in their actions, in their particular individual contingency and significance, in order to analyze precisely the context of the action and the processes of work (Sclavi, 2005). For our research we gathered an entire notebook of shadowing observations and memos that describe the student's participation in four exemplar days of ASW internship at four small companies in the South Tyrolean territory that hosted the students for the internship.

Transcripts of the interviews and shadowing notes were subjected to a content analysis that led to an identification of categories and the relations between them. Contrary to what the name might suggest, this type of analysis includes not only the analysis of explicit and manifest content but also different levels of content. First, the themes and the paths of thoughts emerge and then, through an interpretation of the textual context, the latent content (Mayring, 2010).

Content analysis is an approach involving methodologically controlled empirical analysis, in which the collected material is considered to be incorporated into its communicative context and is interpreted following analytical rules that do not lead to early quantification. The coding process generated a large number of terms and sentences-codes which were then grouped into categories in the second phase of coding. The identification of two major categories offers the possibility of a deep understanding of the students' perception of their learning in the internship places.

Finally, through a kind of respondent triangulation, we also involved the students in an interactive and reflective process of data interpretation.

2.2. Findings

Our research highlights how the internship places represent an opportunity for becoming in relation to the situations of internship place, and in relation to the habitus of the student.

Evidence from our analysis suggests that the possibility of becoming depends both on the conditions of the professional field beyond the school, and on the habitus of the student. A close synergy between school planning and internship can improve the given preconditions for more effective learning. If we want to refer to learning in work contexts and the concept of learning as becoming, we have to think very broadly in terms of considering the social, cultural and emotional aspects and go beyond the idea of acquiring knowledge and technical skills (Biesta, 2017). Our data in this sense therefore support the idea that learning involves a process of becoming: the students affirm that after their work experience they feel more committed to their holistic educational process.

Furthermore, students appear to focus on the school and the internship as a discrete discursive field with its own rules. Students do not seem to be able to link learning at work and learning at school: they do not immediately identify possibilities for transferring knowledge and skills because participation in work-based learning provides competences that are differently perceived. However, they feel that they have changed their disposition to education, and that «something has moved in my life, not what concerns the school life and the school outcomes, but in my motivation, in the perception of my competences» (transcription of a recorded interview, April 10, 2019).

Conclusions

This research shows that the internship in a contingent historical and cultural dimension such as that of South Tyrol is also a privileged field that can be used to guide changes in both teaching and learning practices. Experiences and activities in WBL affect what students do and how they interpret what they do, and what they become. The learning process during the school-work alternation internship can have an explicit purpose, or not, partly deliberative and partly contingent. This process of becoming is considered by students as significant and always situational, transcending individuality and learning cultures. The internship experience is felt to be an important event, a profound and significant stimulus to learning, which may be less imperceptible than formal school learning. Students learn as social individuals and at the same time contribute to the construction of the learning cultures in which they participate, in a process that, by echoing Lave and Wenger (1991), we could define as relational.

Finally, our research suggests that internship experience is more likely to be effective if many of the forces that interact in the field of a learning culture act in synergy, such as when school and company tutors participate in a common project and a broad educational vision. Therefore, when it comes to promoting effective learning both at school and in the workplace, changing the learning culture, including its social and institutional dimensions, is essential, so that is possible to increase synergies and partnerships. This obviously foresees new competences for teachers in order for them to be able to step outside traditional ways of learning and teaching. It will also require the development of borderline learning places in order to consolidate cooperation between learning places, together with addition of a range of different stakeholders.

Coordinating and promoting cooperation between learning places seems to imply the creation of different 'bodies' of cooperation. In any case, cooperation between learning places cannot be reduced to the individual actions of schools and companies. It is fundamentally important to promote the commitment of the education system in general within the political and economic structure, in such a way as to support the recognition and enhancement of the particular form of learning from experience as «a holistic integrative perspective on learning that combines experience, perception, cognition, and behaviour» (Kolb, 1984: 21) which is quite distinct from the incidental learning that takes place throughout our daily lives.

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Self-Taught Improvisers: Jam Sessions as Resistance to Formal Jazz Curriculum

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Keywords: *Jazz education, self-teaching, ethnography of education, resistance to formal curriculum, jam sessions*

Introduction

This article contains a synthesis of some aspects of an ethnographic field research that I did at the non-competitive, weekly jam session held at 'Tony's', a bar in Brooklyn, NY. In my research I have tried to deepen what I consider to be one of the pedagogical foundations of jazz traditional learning, which is based on self-teaching and non-formalised skills which are developed informally within the community of the musicians, rather than in institutions. In my recent book, *Prospettive sul jazz* (Keepe et al., 2019). I have showed the results of the research, and I have especially focused on the 'street jargon' which musicians use to simplify the harmonic knowledge necessary to improvise. Here I will rather focus on some ideological stances expressed by musicians who learn informally. In their attending that kind of jam session, I have identified a sort of resistance to the formal jazz curriculum which is currently taught in universities and conservatories.

1. Jam sessions, improvisation, self-teaching

In non-competitive jam sessions, jazz musicians learn to improvise (or hone their improvisational skills) through the direct experience of their instrument, in interaction with other musicians, rather than through the formal or the solitary study of complex theoretical concepts. In fact, whereas for example in the conservatories there is the tendency to study harmony as a theoretical subject, based on abstract formulas (and the student must be able to theoretically solve harmonic problems, before resorting to the instrument and to the ear), in the jam sessions it is rather the opposite, with improvisers who, by ear, learn to 'dare' to play *impromptu* the melody that they 'hear inside their heads', integrating it 'here and now' in the general harmonic design of the band. However, this exercise, although daring, is not left to chance. In fact the jammers (so we shall call the participants in the jam session from now on) have a clear – though simplified – understanding of the functioning of harmony and improvisation (and therefore, of what they can play, without the risk of playing 'clinkers') thanks to a 'simplified' system of rules, through which they can reflect 'in group', they can exchange precise technical information and therefore also 'teach' their colleagues and 'learn' from them in a non-extemporaneous, but structured (even if 'facilitated') way.

In my ethnographic research I studied this aspect in particular, systematically collecting the conversations that the jammers had, between one *number* and another, to 'explain' to one another what they had just improvised. From these conversations I distilled the essence of their rules for improvisation (and the related harmonic foundations) through which the jammers 'reflect on the experience' of playing live, and somehow transform it into structured knowledge.

Such reflections are related to the technical aspects of music, but also to the acquisition of aesthetic values: what is beautiful in improvisation? What is ugly? Which forms of improvisation, while still being personal and / or innovative expressions (the true jazz player should aspire to at least one of these values), are really compatible with jazz tradition? And then, how can we maintain the delicate balance between the indispensable respect for the oral tradition of jazz (represented mainly by the *corpus* of the most important recordings left by the 'masters') (De Vaux ,1991) and the originality that every improviser should pursue? These are just some of the questions which, through the informal training of jam sessions, jazz musicians try to answer, while they learn to play (or they perfect themselves), by reflecting on the experience of musical improvisation in group.

These rules, these reflections, these questions, expressed by the jammers in a peculiar 'street' language, I have gathered directly from participants in a 'regular' jam session in which I took part weekly, for six months, in Brooklyn, where at the time I was living. During the day, I was working as visiting researcher, studying ethnographic methodologies in education at NYU. In the free time and in the evenings, instead, I tried to improve my knowledge of jazz guitar, especially by attending the numerous jam sessions that were held in various areas of the city. It was therefore natural for me, once identified a jam session relevant for its pedagogical contents, to decide to attend it regularly in order to carry out an ethnographic fieldwork.

My research was mainly based on: participant observation; interviews; recording / transcription of conversations between jammers; and finally on the transcription in musical notation of some recordings of the music played at the jam. The latter were necessary for me to provide examples of musical phrases on which the jammers who just played them, were formulating their pedagogical reflections. In summary, for ethnographic data collection I referred to methods of ethnography of education (Paolone, 2009; 2012) and musicology (Gazit, 2015), (Piñero, 2011), (Qureshi, 1987). For the conceptual processing of data in a pedagogical perspective, instead, I referred mainly to the model of experiential learning (Kolb, 1984), (Dewey, 1963), (Kompf, Bond, 2001), (Biasutti, 2015).

2. Resistance to formal jazz curriculum

But the aspect of Tony's jam which I will discuss here, consisted of one of the 'ideological' foundations implicit in the jam itself, moreover evident in the words and behaviour of some of its most assiduous participants: the protest against that new way of understanding jazz (which had been spreading in the United States for at least forty years) that descended from the 'academisation' of jazz education.

I have tried to synthesize this polemic against contemporary jazz education, from the words of the jammers themselves: at least until the 1960s, in the USA (and in the rest of the world) many professional jazz musicians were still self-taught, to varying degrees. Some musicians of today (especially the 'old-timers') believe that this was relevant in terms of creativity and vitality of the music. Until the 1960s, in fact, jazz was characterized by continuous stylistic revolutions, some of which radical and paradigmatic (think of the advent of bebop in the 1940s). From the 1960s onwards, the extent of these innovations seems to have been considerably reduced. In this sense, I would like to refer to an academic debate that we could summarize with the formula: formal curriculum vs. spontaneity and creativity, which is developing in the Anglo-Saxon world. This

debate, whose relevance at a pedagogical level has been confirmed, for example, in aspects of Green's fieldwork (2002), in summary consists of criticisms of various kinds, made by scholars and musicians alike, to the diffusion of credentialism in the world of jazz.

In short, these people believe that If today creativity in jazz seems impoverished, to the point that some claim the 'death of jazz' (Nisenson, 1997; Nicholson, 2005; etc.), it is because of formal education. Since the majority of professional jazz musicians study in universities and conservatories (today, without formal qualifications, it is increasingly difficult to get a job in jazz), they have lost some of the creative freedom which descended from self-teaching.

According to these critics, the musicians of the older generations (who were often self-taught) were more creative and innovative. They had the courage, the ability (and sometimes perhaps the unconsciousness) to get out of the established schemes, to propose new, disruptive musical forms, contributing among other things to the continuous renewal of the genre.

One of the cornerstones of the old type of self-taught training (before everything moved into sterile university classrooms) was precisely the non-competitive jam session: the informal meeting (usually in bars or clubs) of musicians, in which they learned to improvise by playing in group (Berliner, 1994). Of course, jam sessions still exist, but from what I've been able to learn from the elder musicians I have met and interviewed, they are now quite different from the legendary ones of the past. Once the accent was on the oral knowledge of tradition and the ability to improvise (also 'auroral', 'natural' and linked to talent). Today, on the other hand, jams (and especially the 'competitive' ones) would be characterized above all by standardised professional skills, learned through the formal education that new jazz musicians get in institutions: for example speed sight-reading, or an in-depth theoretical knowledge of the canonical rules of harmony and composition, and a standardized technical approach to the instrument. The jam session seems to have become a place where to put into practice this 'approved' institutional knowledge.

In a similar context the self-taught and sometimes semi-illiterate 'wizards' who have learned to play by ear-copying hundreds of solos from records, who have approached the instrument using techniques invented by themselves and 'out-of-the-box' (think for example of the 'horizontal' sax by Lester Young or the guitar thumb-picking by Wes Montgomery) would be looked at with suspicion or even rejected, by a new community of musicians accustomed to identify in the formal standardized skills of Western music (taught in institutions) the new criteria for assessment and discrimination, functional to their contemporary professional milieu.

Instead, from the opinions expressed by its participants, and from the ethnographic observation of the ways in which the jam session (and the connected 'listening sessions') took place, it seems evident that Tony's jam aimed at reconnecting to the 'old' jam sessions, with a stress on self-teaching and free experimentation, and was more generally inspired by a sense of revolt and rejection against the 'new jazz' of universities. By doing so, Tony's jammers aimed at preserving their creative freedom 'intact'.

Conclusions

In the research that I have recently published (Paolone, 2019). I have showed the system through which the musicians who attend Tony's jam analyse their improvisations, both to exchange information at the moment of the musical performance, and to discuss it later, for instance in 'listening sessions' which at

times occur after the jam. This system is based on a 'simplified' version (and immediately applicable to practical musical situations, such as improvisation 'on the spot' on a piece of music never heard before, which the band must perform without any preparation) of notions of harmony and solfege. Usually these 'simplified' explanatory formulas are used by jammers to 'instantly' explain why that certain phrase they played by ear works well on the sequence of chords that the band is playing. In essence they are 'pills' of harmonic theory that allow improvisers 'in the field' to immediately and functionally understand how certain notes and phrases sound 'right' to the ear, while others sound like 'clinckers'. But also, to intuitively explain which notes should be played to reproduce a certain jazz style rather than another, to imitate the phrasings of a certain artist, and to be musically 'credible' in a given context. In essence, this 'street jargon' on harmony and improvisation, constitutes the vehicle through which the informal musical education of musicians attending jam sessions (and, more generally, of self-taught students), takes place.

To expound this jargon and harmonic rules in an organic and easily understandable way, I have used notation transcriptions of the improvised phrases by the participants of the jam sessions, recorded by me with a pocket device. In the 'listening sessions' I listened to the recorded phrases, and transcribed the explanations with which the more experienced musicians dissected and analyzed what had been played, in order to explain to me and to the other 'greenhorns', what and why according to them 'sounded good', and what not (but also in order to discuss it 'among experts') (Ratliff, 2008). I also picked up this kind of 'explanations' when they were made 'on the spot' immediately after the playing, during the jam.

In short, this 'informal' learning process at the jam session follows a sort of cyclic pattern. The jammer begins the cycle by improvising by ear. Then she/he becomes aware of what she/he has played and of its possible congruity, through a reflection that makes use of the musical logic shared by the group, in the form of the technical 'jargon' I am referring to. Finally, the jammer puts this knowledge at stake in a new improvisation, bringing in the new skills she/he has acquired in the cycle that we have just illustrated, and starting a new cycle.

Such 'street jargon', is a language that illuminates and immediately transmits an intuitive understanding of harmony and improvisation, and that takes many 'shortcuts' with respect to the classical treatment of these topics, which would be taught in formal institutions. But being simple and intuitive, this way of thinking and expressing oneself about music, safeguards spontaneity, freedom and the immediacy of expression and experimentation. And it unveils the understanding of jazz harmony even to the simplest people, who have not had the opportunity to follow formal studies.

Above all, it allows those who learn jazz to keep a balance between the respect for the oral 'jazz tradition' (in my opinion constituted, in addition to the corpus of the most important recordings left to us by previous generations, by this informal way of understanding and reasoning about harmony and improvisation), and that creative and innovative freedom that has allowed jazz to continue to evolve energetically throughout its history.

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Theatre as Metaphor and Performative Learning in the Academic Scene

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Keywords: *Theatre, Performative learning, Embodied narratives, Reflective practices*

1.Theatre as metaphor

There is a vast body of literature on the relationship between theatre and education (Mangham, Overington, 1987; Massa, 2001; Ackroyd, 2006; Taylor, 1996; Garoian, 1999) indeed, in a certain sense education was born of the more archaic forms of theatre, as reflected first in the latter's ritual origins and later in Aristotle's enshrining of the transformational and 'pedagogical' value of Greek tragedy in the Poetics. It is less common to come across discourses framing theatre as a metaphor for education and training, as I do here by arguing that the elements making up theatre and those making up the educational situation are not identical but rather shed mutual light on one another, with the potential to enrich reflection and practice in both spheres.

There is an essential but implicit side to educational practice that the metaphor of theatre can make explicit and accessible, leading educators in the first instance to develop an enhanced awareness of their own actions, and subsequently to acquire authentic competence.

Theatre has its roots in ritual and sacredness, and through theatre, human beings have ritualized the moments in life that hold particular meaning for them at the social and individual levels. Education, like theatre, allows us to experience a liminal space (Turner, 1982) that also acts as a double space, in which both our doing and our being is 'duplicated'. Furthermore, both education and theatre enable us to suspend our unconscious ritualization of life, bringing us to a greater awareness of existential meanings and of the behaviours and scripts characterizing our 'educational life'. Education also implies attempting not to conform to this ritualization of life, which often appears to be inexorable. Finally, theatre seems to offer education a means of emancipating itself from the ritual inflexibility in which it too sometimes becomes bogged down.

Viewing theatre as a metaphor for education implies drawing attention to an ambivalent relationship and a crucial element of pedagogical experience. The theatre workshop enables us to acquire a new familiarity, an art, a mindful presence and the ability to reflect competently about the double nature of experience and about its ambivalent structure: it gives access to a second level of experience that does not judge what is happening but tries to make it meaningful by valuing experience based on difference, the formation and transformation of masks, the alteration of time periods, and the layering of the spaces – including the symbolic spaces – that host and are organized by our practices.

It is not possible to understand what happens in a theatre workshop without engaging in one. In theatre, it is our concrete gestures that allow us to enter into contact with what we are doing, with the motivations behind our action, with the meanings that it takes on when it modifies the context in which it was made, and with the representations that underlie and orient it. This opportunity afforded to us by theatrical experience is pedagogically valuable because frequently all too

little attention is devoted to the quality of educators' presence within the time and space of their teaching activities.

2. Space and time of the workshop

An educational theatre workshop of this kind, to be implemented with a group of about thirty students, immediately poses a challenge in relation to time and space. The type of project whose key dimensions we are about to describe, demands by its nature a versatile space and a long period of time; two characteristics that are not always compatible with the current functionalization of university teaching activities.

Space is of fundamental importance. The workshop requires a habitable space that is not inhabited by desks: that is to say, a space that may be constructed and deconstructed in keeping with the specific activity to be conducted. An adaptable setting that may be laid out in the way most conducive to the achieving the objectives of the planned activity. The first step therefore is to provide a space that can adequately contain the needs of a sizeable group of people who continuously alternate 'blackboard' exercises with floor exercises, in which chalk is more frequently used to mark out on the floor the starting positions and points of encounter among the students' bodies.

One of the key purposes of this educational practice, a purpose that is also served by the workshop's long duration, is that of reclaiming a 'living space' that is used almost exclusively as a container, in a way that is often hostile to higher education experiences.

If spaces invariably have a story, and this story is closely bound up with their function, then we need to violate the rules governing the normal and normative functionality of academic spaces. This implies encouraging the entire work group to put into practice what Genette, in a completely different context, referred to as «re-use» (Genette 1982). There are many illustrious historical examples of this within the theatre tradition, ranging from street theatre to The Living Theatre. Feeling oneself to be part of a transgressive intention, particularly in a highly formalized context such as the university, can fulfil a strongly education function, especially if the transgression in question is not ultimately unrealistic and is underpinned by a profound ethical and political need, corresponding to educational needs that the group can own because it shares them. (In this regard, the chosen architectural and functional characteristics of recently renovated Italian university campuses prompt serious reflection). The reclaiming of university spaces by their true owners is not easy to put into practice, given that institutional inflexibility makes itself felt even for something as simple as a rehearsal, concert or play lasting only a few hours.

It is almost as though forcibly reclaiming spaces that may be neutral, or purely aesthetic, and assigning them with a function that is new and eccentric vis-à-vis the norms designed to maintain the educational and institutional status quo, exposes in a certain sense, a lack of attention to the real needs of those who literally give life to the institution and who in this act of 'reclaiming' are seeking channels of expression.

The time required is a long time. The total time frame for an educational theatre workshop overrides the logic of semesters, and even though the workshop is still tied to ordinary types of logic by virtue of being worth a certain number of credits, it is intrinsically different to other educational experiences.

The space-time required to complete this kind of workshop necessarily includes intervals during which to assimilate the ongoing experience. These periods must be viewed as part of the teaching activity itself, rather than, as often

happens, leaving the students to engage in solitary and unshared reflection on the experience at a later date. A long time is required. A dilated time frame, to be gone through as one might approach a snow drift, that is to say, as something out of the common, markedly different from the rest of the student's daily existence, so that which is learned may become experience, and so that the time devoted may become an extended, translatable and communicable memory.

Group experiences of this kind bear signs of a temporality, which, it should be noted, is still experienced within the ordinary flow of university life but reflects needs that have been reconnected to the workings of educating the whole person and developing the self.

3. Embodied narratives and performative learning

The opportunities for learning provided by a theatre workshop may be illustrated by the workshop that I myself conducted last year at the Department of Human Sciences for Education, here in Milan-Bicocca University, with twenty-five students. We worked on the play by Alberto Savinio, *Captain Ulysses*, which presents a Pirandellian version of key scenes from Homer's *Odyssey*.

The group of students, guided by myself and a colleague who is a dancer and a choreographer, Cristina Negro, produced a 'pedagogical' interpretation of the story, taking Savinio's script as a starting point, re-writing it, and composing a new text that emerged from the peculiar perspective of what the text communicated to group with its present day sensibilities. Thus, the polyphony of voices (Bachtin, 1981) present in the group, constructed a dialogical Self (Hermans, 1996) that interpreted the text and began to reflect on its educational 'resonances'.

«The voices function like interacting characters in a story, involved in a process of question and answer, agreement and disagreement. Each of them has a story to tell about his or her own experiences from his or her own stance. As different voices, these characters exchange information about their respective Mes, resulting in a complex, narratively structured self» (Hermans, 1996: 33).

This peculiar collective re-writing produced at the intersection with the students' own lives and learning biographies (West-Merrill 2009). In this learning scenario every student can express and act his/her own 'interpretation' of the main relationships between the characters of the play by Savinio – Ulysses, Telemaco, Penelope, Mentore – playing with what these epical and archetypical figures tell to their specific analogical existential and learning relationships 'acted' during their life histories and biographies.

This field of reflexivity was amplified by the parallel 'embodied' experience (Maturana, Varela 1985) that the group went through during the theatre workshop: a learning process that built on exercises for developing bodily self-perception, the relationship between bodies and space, movement and awareness of the body, gestures and rhythm. Therefore, this embodied reflection a biographical interpretation of Savinio's dramatic text, yielding new 'forms of vitality' (Stern, 2010) of 'embodied narratives' (Formenti et al., 2014).

Through the interplay among contrasting but coexisting interpretations and performances of the text, the students' collectively re-negotiated the original script and re-wrote it. A space of (possible) transformation of the academic setting was generated. The initial and traditional academic space turned into a specific 'space of play of learning'in which knowing, sharing and interpreting evolved into a collective 'theatrical expression' (Goffman, 1959). Furthermore, this 'learning scenario' required the whole group to take responsibility for and to care for the process, «re-using» (Genette, 1982) the spaces of the University

as a 'new educational setting' (Massa, 1985) on which students were able to act out and communicate via a «transindividual embodied experience» (Balibar, Morfino, 2014) something meaningful about the relationship between their own personal strategies of knowledge acquisition and their biographic resonances (Barthes, 1971).

4. Actors of an educational reflective practice

The resulting group is a group of peers, a work group. The group leader must not focus on interpreting group dynamics but on pursuing an educational aim. This is the essential difference: there is something inherent in workshop activity per se that is expressed as a group effect.

And in order to more effectively observe these group effects, their peculiar characteristics, their potential and consequences for individuals and group activity, the group leader must take a step back, or rather to one side.

The key theoretical aspect of this shift, which by analogy with theatre may also take place in education, is a paradox: through material action, the educator creates a space of reflection, awareness, interpretation (Norris, 2000). The bodily and material nature of educational work, well expressed in the metaphor of theatre, has the potential to promote awareness and critical rethinking. We define the educational experience fostered by the theatre workshop as an active, bodily, material experience, an experience that is acted out and lived with the body, but which at the same time enables us to explore and critically reflect on its contents: such is the potential learning space of the 'educational setting'.

Experimental theatre (such as that of Artaud or Grotowski) produces an acting out which involves a thinking and learning process that takes place at the group level. In theatre, the group of actors produces, creates and acts out a psycho-bodily partitura (Grotowski, 1968).

Implementing and organizing a theatre workshop within a university teaching programme, means attempting to construct a space in which a group of students encounter a dramatic script, and interpret and deconstruct it in terms of both content and form, giving rise to a collective production process, to an interpretation that constructs a virtuous circle going from educational biographies, or the lived experience of individual group members, towards a 'writing' of the educational process undergone by the group in the course of the workshop and of producing their group creation. The workshop is designed to give participants the opportunity within a university context to bring a deeper perspective to bear on lived experience and educational rituals as well as to thematise fictional and creative aspects of education, both with and through a peer group.

This collective mode of theatrical production, which poses multiple challenges at the methodological level, is also an exercise in counter-manipulation that will be valuable to the students-educators-trainers in the course of their future professional activity. It exposes and explains in a direct manner, the dynamics, often suppressed, which are invariably present in the internal relations of any group of students, as well as between students and teachers, and which are often similar to the dynamics that educators encounter on professional teams.

The space-time of education is also a performance, which engages in one and the same scene teachers and students, trainers and trainees alike, allowing all parties to value previously tacit competences and to shake off the bonds of overly stereotypical roles. Theatre thematises this *presence* – not only of the body – as a bridge towards critical and mindful education via the interplay of reciprocal interpretations.

In this sense, an educational theatre workshop in the university context may be seen as the place in which we encounter the play of freedom. Freedom and autonomy that are generated and experienced not by means of controlled actions typical of rational calculation, but as the outcome of the play of relationships, a playing off that is only visible in the field created by the presence/action and practices of the subjects being educated.

A set that is not detached from the broader life context, that engages with and reacts to, resists if necessary, the forces constructing and constraining reality: the learning stage thus emerges as a field in which the educational and the political may meet in the materiality of a shared process.

Only the collectively staging of a scene within this field and within this play of relations can potentially represent an educational practice that creates the conditions for a space and a time in which to present and represent alternative existences, or an 'aesthetics of existence' (Foucault, 1984).

Institutional, public and academic space is transformed by a collective performance that, taking personal reflexivity and biographical awareness as a starting point, ultimately becomes a 'shared act' of playing out knowledge in a dynamic way that is more personal, more creative, and more political.

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Digital Humanities and Pedagogy: A Case Study

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Keywords: *Teaching Italian as second language, Digital education, American University in Rome, Language as Culture.*

1. The research problem

A lot of foreign students dream of spending a period of their study life in Rome, the eternal city. Among those who come, the majority pick an American program and take an Italian language and culture class. When they sign up, they read the syllabus where it is stated that, along with the Italian language, they will learn Italian culture.

After having taught for 15 years in American programs and universities in Rome I was struck by the students' lack of real immersion in and understanding of Italian culture and the city of Rome. Despite what is declared in the syllabi, it seems to me that, while most of the students achieve a good level of Italian, few of them learn something significant about Italian culture and their new home city. Moreover, when some cultural information arises in class, it is clear that most of the students have difficulty connecting what they study for another class and what they learn in the Italian language one. It is as if knowledge is divided into separate boxes and a literature class, for example, has nothing to do with a language one.

2. The search for a possible solution

Convinced that learning and teaching are two sides of the same coin, I decided to look for a possible solution to the problem by creating a new, innovative and experimental tool to teach Italian language and culture. The main goals I had in mind while thinking of how to approach the problem were to:

- create a tool that helped to look at knowledge as a whole and not as something disconnected;
- make students learn, first-hand, some cultural elements of Italy and, specifically, Rome;
- help students see with open eyes the places they were living in;
- present the Italian language in a way that could help them experience how much language and culture are interconnected;
- create a tool that was open, free, collaborative and that grows with the class.

While I was researching, I found an Italian scholar, Rosaria Pace (2016), who in an intriguing book asked herself if Digital Humanities (DH) can be used as a learning platform.

The debate about what we define today as DH is very vast and this is not the right place to discuss it. It is clear that digital instruments are everywhere and that most of our daily activities involve some digital tool. Looking at Pace's question I explored the path of DH to see if it could be useful to design and create a tool to approach my problem. As often happens during academic research, the tool I finally created was also influenced by the digital tools I found along the

way. This is how, following the Actor-Network-Theory, (Latour, 2005), human and non-human agents are connected. This is also when my research became a DH research applied to the creation of a new teaching instrument.

Could DH become a tool to bring language and culture together?

3. Digital Humanities and Pedagogy

It is obvious that today the Digital World helps people educate themselves. There is debate regarding the meaning of education, the level of critical thinking in the new generations, difficulties in finding good information on the web and the consequences of being able to educate oneself without the onetime necessary help of a teacher. But, like it or not, we all use the digital world also for educational purposes.

What about using it as a learning platform? Why did I decide to use the digital world in order to approach the problem I met and described above?

First, after the invention of Web 2.0 there was a huge shift in the instruments we use to communicate and to exchange and create information. The internet and social media created a new flow of communication, many to many, a world where we are called on to be not just consumers but prosumers. We are constantly called on to produce something on the web, to become part of it, to participate. Are the new digital tools that the web offers us enough to create people able to really and ethically participate? What does participation really mean today? When we teach students, we cannot forget the main tools they use in their daily lives and our responsibility to help them understand the importance of participation: in the world and in the construction of their own knowledge as well.

Secondly, the digital world changed the format to represent cultural artefacts. This clearly does not mean that nowadays all artefacts are digital but some of them are and a lot of them use some digital tools to be built.

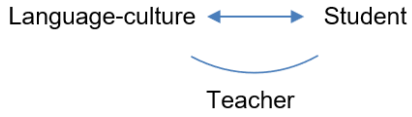
Thirdly, the digital world profoundly changed the language to express our content. This new language needs to be taught and to be used in classes as well in order to be able to use it with its great potential. As humans, we never communicated in a linear way. The invention of writing forced our brains to learn how to work following lines and linear paths, but this is not how human brains naturally work. The potential offered by digital instruments in expressing our self in ways that combine different forms together is incredible.

Lastly, the digital world offered a new and great possibility to create sharing environments and open sources.

Everything that we just mentioned had another very important consequence: a change in the role of the teacher, from being the master of knowledge to becoming a designer. In her brilliant book *Teaching as a design science* Diana Laurillard (2012), following the socio-constructivism theory, explains how the digital world can help learning processes and help teachers to design their teaching.

Specifically, language teaching is a theoretical and practical science. When you teach a language, you need to follow an approach, a method and use different teaching techniques according to the different learning goals. The space of the teaching action is made by the subject, the student and the teacher (Balboni, 2014), It is also made by the tools that are used to facilitate the learning process. The space of the teaching-learning action-process creates the learning environment (Limone, 2013), In the case of teaching-learning a language, it has to include the language-culture, the student and the teacher. But the linear way I use to write the elements do not do justice to the way the elements should

interact. If we look at the following chart, we can see how the communication should flow.



The teacher should be a bridge helping the communication between the student and the language-culture. The tools the teacher uses to be that bridge are fundamental.

How did I find DH useful to build that bridge and to reconnect language and culture?

When a language is learned the linguistic input is what we need to understand (Chini, 2005). The role of a teacher is to present an 'authentic' input that the brain can decode (Rastelli, 2009). I found that to make the linguistic input more significant while being at the same time a cultural input it helped to 'situate' it. In other words, to connect the input to a place.

One of the problems I saw with the students was their disconnection with the place they were studying and living in. It seems that the reality of the city of Rome, it being a living open book, was undiscovered by many. The importance of connecting our learning experience to places, to put them in spaces (real and virtual as well) is well known (Limone, 2013), Our memory is more likely to recall things when we connect them to something else (Rivoltella, Rossi, 2019).

In the public debate, often the digital world is accused of having brought the young generation far from reality, making them live in a virtual world while having lost the capacity to live in the real, tangible one, that is in front of their eyes (Galli della Loggia, 2019), But is the virtual world we live in and we use for so many things nowadays forced to be just responsible for detaching us from reality? Or can it be used, in a learning environment for example, to enhance the reality itself, to reconnect people to the real places, to make them learn a language and its culture easily and more profoundly? Don't we need to redefine the world 'reality' today? (Rivoltella, Rossi, 2019),

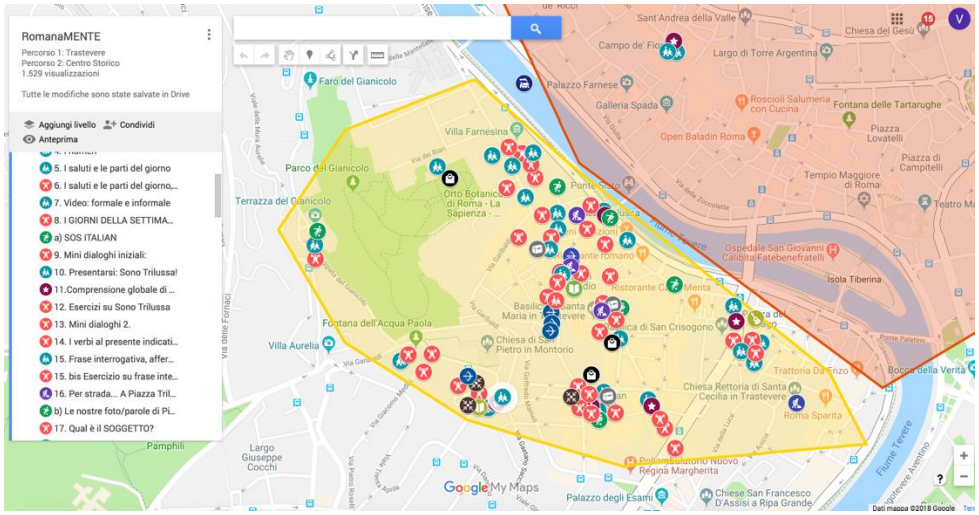
All this reasoning made me come up with the idea of a new format for teaching, a new idea of a textbook. That is a digital textbook whose 'cover' or main page-container is a map created with My Google Map; a digital textbook where all the activities, the ones in class and the homework, are put, in the form of links, located in places around, in my case, the city of Rome.

4. RomanaMENTE: how it was created and how it works

RomanaMENTE, the name I gave to my new experimental tool, is the first attempt to create content for this new idea of a digital 'textbook'. It is a hypermedia to teach Italian language and culture to students in American programs located in Rome. To create the content, I used only free digital tools. Since the main idea was to connect the learning experience to places, Google Maps seemed to be the best option for the big page-container of where to locate all the different activities. (Figure 1).

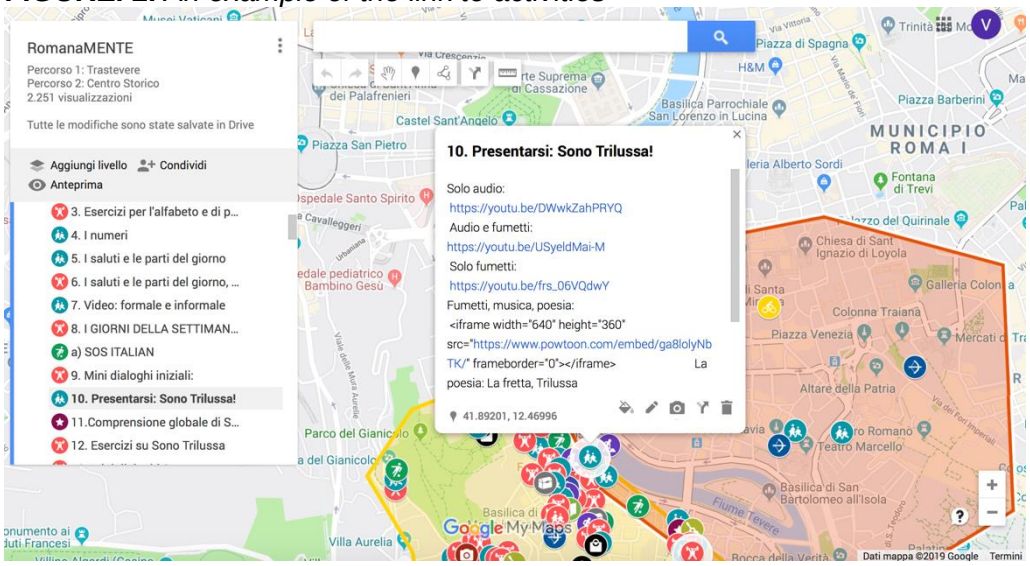
For the level IT101 two areas of the city of Rome were selected: Trastevere and part of the historical center. Starting from there, some educational paths were created. Anytime a place was considered significant, it was labelled on google map and the different activities, created for that place, were put, in the form of a link, under the description of the label. (Figure 2).

FIGURE. 1. *An overview of RomanaMENTE*



source: RomanaMENTE (2018)

FIGURE. 2. *An example of the link to activities*



source: RomanaMENTE (2018)

As the students navigate the map, they encounter and meet significant people of Rome and Italy that can be found, for real, in statues around the eternal city. For example, one of the first stops on the map is in Piazza Trilussa. This is where the students meet, for the first time, the main character of RomanaMENTE, Rita, a young very talkative American girl, studying in Rome, who loves to discover the city and to know its history, traditions and people. In Piazza Trilussa Rita meets the statue of the famous Roman poet and following a link, the students will watch, in class along with the teacher, a video, created with the movie maker program Powtoon (https://www.powtoon.com/home/), whose background is Piazza Trilussa where the cartoon girl Rita and the statue of Trilussa have a conversation. The dialogue presents the students with the expressions Italians use to introduce themselves and to get to know someone for the first time. In the meantime, as one of the characters is the statue of a famous poet, the students are exposed to general cultural information and are intrigued by the fact that they are 'meeting' an historical figure whose real statue they will be able to see a few steps from where they study. As the story goes on and the

students keep moving around the paths in Trastevere, they will find activities always created using, as a starting point, authentic material linked to places. For example, after a few 'steps' in RomanaMENTE they will find themselves with their teacher in Vicolo del Bologna where there is a famous pizzeria, 'Dar Poeta', and while they are getting to know a new poet (Gioacchino Belli, Roma, 1792-1863), they will see a picture of the pizzeria's menu, transformed into teaching material thanks to the platform Thinglink (https://www.thinglink.com) to introduce the Italian nouns. By clicking different icons nearby the nouns in the menu different information will appear, some extra links that will take them to the grammatical explanation both in Italian and in English and some pictures with some charts. In both cases just used as examples, the homework activities the students will have to complete will make them physically go to the places they encountered in class with RomanaMENTE. For Piazza Trilussa they need to go and find the statue, take a picture of it and the whole piazza and tag it, using Thinglink, with Italian words of things they see and like in the Piazza. In the Pizzeria 'Dar Poeta', after having read a dialogue in the pizzeria, they need to go and find some information they were asked to find directly there, as a treasure hunt.

Rita's story continues and the students in class and outside class, both virtually and in the actual city, follow her while discovering Italian language and culture. The way RomanaMENTE is created makes the level of students' participation in their own learning process extremely high. The students are continually asked to be part of the story and to create different kinds of materials that the teacher will then add to the map, making their textbook grow with them.

5. The use of RomanaMENTE in class. An explorative study

During the Spring Semester 2019, a semi-experimental qualitative study was conducted. Two Italian 101 classes were picked, one as the control group (B) and one as the experimental group (A), In group A RomanaMENTE was used as a 'textbook' while in group B the traditional Italian textbook *Italian Espresso 1* was used.

Data was collected though questionnaires and the observation of the professor in both classes during the whole term. At the beginning and at the end of the semester both groups filled in a questionnaire with both open and closed questions. The first questionnaire was identical for both groups, and it aimed to find out basic characteristics of the students (age, nationality and spoken languages), their interest in Italian language and culture and their opinion about what works best to help their learning processes. The questionnaire at the end of the term had some common questions for both groups and some different ones. The common questions wanted to measure if there was an increase or a decrease in the student's interest in Italian language and culture after taking the Italian 101 class. Then, the further questions for group A sought to find out the student's perception about the use of RomanaMENTE compared to a traditional textbook while the ones for group B sought to measure the student's perception about different activities, more or less traditional, used in class.

During the class observation a lot of notes were taken that were later analyzed along with the answers to the questionnaires to draw some initial reflections about the teaching tool in practice. In summary, the explorative study shows that, even with some adjustments that need to be done, RomanaMENTE was successful in making students:

- more interested in the Italian culture;

- more able to look at their learning of a language as a part of the general knowledge;
- learn more information about the Italian/Roman culture while still covering all the linguistic elements stated in a 101 American syllabus
- more aware of their surroundings, able to use the actual places they were seeing to help their acquisition of the language;
- more aware of the importance of participation: participation in the building of their learning processes and participation in the sense of sharing their knowledge and capacity peer to peer and with the teacher in both the real and virtual learning environment of RomanaMENTE.

6. Some final thoughts

RomanaMENTE is a digital humanities project that, at the micro level, created some specific paths in the city of Rome to connect the learning of the Italian language with the discovery of the city of Rome and Italian culture using free digital tools to build the whole hyper-media and having as its target university students in the American context in Rome.

The macro idea behind it is to create a format and a model to be used and shared among teachers of languages and of other humanities subjects that could create their own maps with Google Maps with their own content situating as much as possible their teaching. Moreover, in the same university, different professors could work on the same maps and paths presenting their own topic and subject links to the same places. This would facilitate students to look at the same monument, place and historical figure from different angles and perspectives and to create their own paths and their own connections in the beautiful world of the humanities where digital tools can help to make us more human and empathic if approached as powerful instruments, part of reality, and not as merely a way to be detached from it. This also needs to be learned, taught and experienced.

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The Keywords of Accreditation, from Ministry to Universities

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Keywords: *University, Reformism, Rationalization, Teaching Quality, Transparency*

1. Teaching university innovation

The workshop of University Innovation - within the course of Sociology of Education held at the Gabriele d'Annunzio University, Chieti-Pescara - aimed to highlight through a double-analysis perspective, both ministerial and academic, and was developed thanks to the institutional engagement of the author within the Ministry of Education, University and Research. In particular, the study of the bureaucratic system marking the introduction of an accreditation system allowed students to better understand the transition to the current academic 'controlled autonomy' triggered to contrast self-reference, fragmentation and lack of transparency (De Martin, 2017).

Even though university renovation implies a thought shift, the study of accreditation enables us to focus on a number of programmatic guidelines directing the path of rationalization, which is made explicit by the recurrence of some featuring Keywords. Thus, the proposal of a Workshop of University Innovation represented a significant opportunity to make clear the reasons that forced the central government to restrict the programmatic autonomy of single universities, the public support for which is nowadays bound to quality and efficiency performances (Moscati, 2012).

The study of university reformism cannot neglect the analysis on the ongoing accreditation process, whose normative references are disseminated with strategic Keywords expressing the way universities are being conducted by MIUR. The aim is to further investigation on the double normative level regulating our higher education system: the upper one regards the central government, the other one concerns the peripheral academic institutions, whose accreditation duties involve both degree and doctorate courses.

The challenge of evaluation entails the goal of economic sustainability, which has become closely related to the assessment of merit and quality assurance. This is one of the most significant achievements of the 'assured universities' drawn by the normative hypertrophy of our times (Morcellini et al., 2017). This is what the Workshop of University Innovation tried to highlight starting from the so-called 'Pacchetto serietà', introduced by the Ministry in 2007 with the aim of limiting the negative effects of uncontrolled academic actions often pivoted on local and personal necessities. For instance, it was the case of the honoris causa degrees, the frequency of which risked being seen as an academic strategy to advertise and attract enrollments. In the meantime, the inception of ANVUR in 2007 was functional to promoting a new evaluation system, which replaced the Policy Committee for Research Evaluation (CNVSU) as an (allegedly) independent evaluation subject, endowed with wide and complex assessment commitments (Capano et al., 2017).

2. The keywords of accreditation: quality, transparency, merit

Indicators, parameters, criteria, monitoring, assessment, definition, planning: these are some of the strategic sub-Keywords related to the accreditation of degree courses and rationalization of the academic system, as the lexical analysis of some normative acts showed during the Workshop. These normative policies inaugurated a new reformist season for our universities, which were required to apply specific actions concerning quality assurance (in line with Law no. 1/2009) to be monitored by ANVUR (dpr. 76/2010).

Therefore, the monitoring apparatus was fuelled by the interaction between Ministry and Agency, in accordance with the progressive reduction of universities' autonomy, which was weakened by the endless stream of didactic and financial parameters also to be observed. In particular, art. no. 1, par. no.4 of Law no. 240/2010 points out that 'the Ministry, in observance of freedom of teaching and university autonomy, defines purposes and strategic policies for the system and its components and, by means of ANVUR as regards its duties, it checks and assesses the features according to criteria of quality, transparency and merit.

The preliminary issues that the workshop intended to probe concerned the meaning of quality, transparency and merit, which can be considered as three basic Keywords of the ongoing reformist process involving European universities as a whole. In fact, the advent of mass education imposed deep changes on the way universities conceived their cognitive mission, which had to be realigned with the functional and experiential features of consumer society (Christensen and Eyring, 2011). Quality and transparency have rapidly become central topics in higher education discourses: «In the days when university classes contained highly selected students, the lecture and tutorial seemed to work well enough. However, the increasingly drastic changes in the tertiary sector have redrawn the university scene – not entirely disadvantageously for teaching quality» (Taggs, Bing, 2007: 1).

The principle of selection no longer matches social class or privilege mindset, despite the fact that good social, cultural and economic conditions may undoubtedly fuel education quality and professional expectations. The University in democracy drawn by Habermas was inspired by the incumbent urgency to open the academic boundaries up to society and young scholars often lacking the necessary references (Lombardinilo, 2019), Thus, the principle of merit implies the development of quality and transparency, starting from the teaching and research practice inside classrooms and laboratories (Gavrila, 2018).

Nonetheless, the initial and periodical accreditation of degree courses represents a fundamental element of innovation in academic life, since it aims to introduce awarding procedures within the distribution of public funds. Legislative decree no. 19/2012 states that a ministerial decree should every three years revise the indicators regarding: initial and periodical accreditation of courses and venues; periodical assessment of efficiency, economic-financial sustainability and outcomes achieved by single universities in teaching and research activities; public and legally recognized non-public universities, including online universities. These indicators should be suggested by ANVUR in line with the general guidelines for university planning.

The goal of quality improvement entails the compliance with teaching and accreditation indicators set by the AVA system in line with decree no. 47/2013, recently replaced by decree no. 6/2019. The mission of quality assurance requires transparency, sustainability, diversification, awarding, which can be interpreted as strategic Keywords of teaching reformism, rigidly aimed at contrasting the fragmentation of teaching (Losh, 2014).

In practice, indicators and parameters for degree course sustainability are to be interpreted as teaching outcomes founded on the accreditation procedures outlined by Law no. 240/2010 (art. 5), which deals with the improvement of university quality and efficiency and consequent introduction of awarding procedures as regards funds allocation as well as the expectation of a periodic accreditation system of universities (par. No. 1.a),

According to the normative apparatus, accreditation should be a double degree evaluation process, both ministerial and academic, which should be pivoted on the assessing action centrally carried out by ANVUR and peripherally by University Evaluation Committees. This is what decree no. 6/2019 establishes by updating and replacing the previous ministerial decrees focused on accreditation, identified as no. 47/2013, 194/2015, 1059/2013 and 987/2016. The latter started to relax the rigid didactic requirements defined by decree no. 47/2013, compliance with which could hamper the regular sustainability of those courses lacking the necessary number of full professors and researchers.

The transition from 'minimal' to 'necessary' requirements successfully expresses the functional shifts introduced by Law no. 240/2010 in the wake of decree no. 17/2010, which anticipated the forthcoming introduction of the accreditation system founded on the observance of initial and periodic accreditation of degree courses. In this account, art. 3 of Law no. 240/2010 tethers the introduction of such an accreditation system to 'the use of specific indicators previously defined by ANVUR for the control - carried out by universities - of proper requirements both didactic, structural and managing, including teaching and research qualification, along with economic and financial sustainability' (lett. 3, par. A),

The definition of evaluation indicators may entail some relevant negative effects, especially the standardization of the whole evaluative process, which should take into account the specific features of every single university, namely geographical, scientific and economic. Nonetheless, the study of lexicographic shifts between parameters, indicators and requirements allowed the students involved in the Workshop to dwell on the programmatic ambiguity of such a reformist process which should increase quality and efficiency through the development of assessment policies in an effort to contrast academic self-reference (Borrelli, 2015),

Such centralized procedures do not neglect the local engagement that both Evaluation and Joint Committees fuel to implement an effective assessment mindset within the academic environment. As a matter of fact, the Ministry supports 'the development of self-evaluation of quality and effectiveness of universities' activities, also through their own evaluation and joint committees' introduced by Law no. 240/2010 (art.2, par. 2.g), The latter are endowed with an institutional responsibility inspired by the principles of independence and autonomy: the same issues feature the evaluative strategies and policies triggered by ANVUR, which were surveyed during the Workshop by focusing on the practical impact of the AVA system on day-to-day academic operations.

Self-Evaluation, accreditation and evaluation are the three fundamental Keywords within such a complex assessment framework, whose introduction represented a sort of Copernican revolution for our university system, since it involves not only didactic activities, but also the recruitment system (through the introduction of the National Scientific License and the quality classification of journals), the accreditation of doctorate courses and the definition of economic-property accounting.

In the background is the programmatic scenario triggered by the construction of the European Space of Higher Education expected to be fully achieved in accordance with Horizon 2020's guidelines. Accreditation implies

internationalization, since it aims to define 'an evaluation system and quality assurance of universities arranged at the European level, specifically in line with the guidelines adopted by the High Education Ministers of the countries joining the European Area of Higher Education' (Law no. 240/2010, art.2, par. no. 2.d).

There is more to quality assurance than just programmatic indication: it can be considered as the political cornerstone of such a reformist process, as was claimed by European Higher Education Ministers in Paris (Ehea, 2018), Keywords enabling the quality assurance process are 'mobility' and 'recognition', as well as 'removal' and 'replacement', especially if they refer to the obstacles still hampering the harmonization process of European universities (Trivellato, Triventi, 2015).

With regard to the degree course, it can be reckoned that accreditation procedures are functional to the tightening of the planning autonomy of universities, so as to reduce the number of adjunct professors and increase the engagement of full professors (at times, under-employed).

By means of decrees no. 47/2013 and 987/2016, the Ministry has progressively relaxed the rigid requirements needed for course sustainability, especially in the light of the quantitative issues imposed by the progressive reduction of financing and turnover. Furthermore, decree no. 6/2019 (which replaces decree no. 987/2016) allows universities to acknowledge fixed-term researchers, adjunct professors and extraordinary professors among the teaching assets necessary to the subsistence of every degree course.

The new normative deal appears to be inspired also by the need to safeguard the autonomy of universities, which has been decidedly weakened by the normative hypertrophy of the last decade. In the meantime, the indicators concerning the periodic assessment of university venues and courses endow academic scholars with a diversified cluster of programmatic Keywords involving: teaching indicators (Group A); internationalization (Group B); quality and environment of research (Group C); economic sustainability (Group D); further indicators for teaching assessment (Group E), All these indicators were inherited from the previous AVA normative acts.

As regards Group A, teaching indicators are divided into five sectors: studies regularity (1); attractiveness (2); sustainability (3); efficiency (4); teaching (5), Every indicator is further described through corresponding sub-indicators. In reference to sub-indicator no. 3, sustainability can be measured through the ratio between regular students and professors, including full professors and researchers and tenure-track researchers per scientific area. The chance to counter fixed-researchers confirms the need to overcome the rigid teaching parameters set by decree no. 47/2013 and progressively relaxed by decrees no. 1059/2013 and 194/2015, later confirmed by decree no. 987/2016.

As regards indicator no. 5, the teaching indicator is consequently gauged through two sub-indicators: the first concerns the percentage of full professors belonging both to fundamental and to characterizing scientific sectors in the degree courses of which they are in charge; the second indicator takes into account the features of the research quality indicator of teachers engaged in the second degree courses. These sub-indicators compel universities to exploit teaching resources to the utmost, so as to enhance teaching and research quality average and thus being granted ministerial financial incentives.

Furthermore, indicators drawn in Group E include students' careers regularity (1), efficiency (2) (measured in line with the percentage of those students who would enroll again in the same course), teaching quality (3), The latter is divided into two sub-indicators: E.3.1: Teaching hours supplied by full professors in comparison with the total amount of teaching hours; E.3.2: ratio between tutor and students enrolled (in partial/full online courses).

Conclusions

Indicators and sub-indicators concerning teaching quality assessment provide a series of programmatic Keywords to analyze the ongoing accreditation process not only from a political and programmatic point of view, but also from a lexicographic perspective. The latter may help scholars interpret the reformist process through the concept of meta-change extended by Bauman (2001) when dealing with education in the post-modern era. This innovation process is also fed by some discursive insights tethering the macro-goals of quality, transparency and merit to the periodic assessment of venues and courses (Pellegrino, Scivoletto, 2016),

These discursive insights are pointed out by a series of indicators defining the quality assurance process. To the fore is the definition of academic policies supporting the 'aligned teaching and assessment' achievable – according to Biggs and Tang – through the empowerment of a real quality assurance mindset: «Just as transformative reflection by individuals is founded on a theory of teaching, quality enhancement in institutions is founded on a generally held philosophy of teaching: the scholarship of teaching and learning» (Biggs, Tang, 2007: 263).

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From E-Learning Practices to the Political Conditions of Individuals: A Case of the Intensive Semi-Presential Week at a Telematic University

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Keywords: *Educational innovations, E-learning, Reflexivity, Care*

Introduction

From the end of the 20th century, democracy, understood both as political regime as well as political culture, portrays the contradictions of a model, frequently analysed more in its theoretical traits than in its numerous historical morphologies (Baechler, 1997). The debate on the malaise of democracy has called into question the alliance between knowledge, freedom and political participation characterising western political thought since its beginnings (Rosanvallon, 2009). The *leghein*, a primary political activity based on reflection and critical ability, a historically distinctive trait of university knowledge, seems to have definitely given way to *tuchein*, the capacity to do and above all to sell oneself, in a market now boundless, based on the instantaneity and emotionality of judgement (Magatti, 2009), In such a scenario, having the adequationist model failed and the ascending intergenerational social mobility been blocked (Dubet, 2010), universities are co-protagonists in the construction of a competitive and market-oriented knowledge (Charle, Soulié, 2014), But what relationship exists between university knowledge and democratic cultures? In which institutional conditions and through what forms of learning can university paths contribute to the formation of democratic cultures? Proceeding from these questions, in the tradition of the sociology of public action, the paper explores a participatory teaching practice, namely the intensive semi-presential week experienced at an Italian telematic university. The case study aims to highlight the ways in which participatory didactic promotes reflective behaviour and the development of critical knowledge in students.

1. Telematic universities and the market

Born in Italy in the early 2000s, in the context of the challenges to the building knowledge induced by the digital revolution (Beck, 2016), telematic universities can be a place to observe the recent transformations of the university system. Based on a complex process of institutional differentiation, they have built their target market by intercepting a student population with a higher age, responding to a demand for more flexible study, offering titles immediately expendable on the labour market. Contrary to the traditional universities that have had to adapt their underlying strategic orientation to the market, especially with the transition from elite to mass university and with university autonomy (Capano, Regini, 2011), the telematic universities are born in a historical period in which the adaptation of the university system to the market is already an ongoing process (Asso, Trigilia, 2016), As newly formed institutions, they ascribe to such a process more easily (Di Maggio, Powel, 1983), they must not overcome pre-

established institutional resistance internal to the governance of the various universities and can define their *mission* by decoding the new needs of knowledge to maintain and consolidate their achieved market shares.

1.1. The characteristics of the telematic educational model

The characteristics of the institutionalization process of telematic universities and particularly the necessity to intercept the new knowledge needs present in society and the structural use of an e-learning educational model appear ambivalent. On the one hand they in fact interpret the neoliberal university model and seem to be conditioned by their participation in the market (Ball, 2008), for another they appear to be a field of potential didactic experimentation. Structured on a complex and multi-agent teaching methodology, entrusted not only to teachers and tutors, but also to technical-IT staff and administrative staff, it is a model that tends to replace *one to many* communication, typical of traditional university teaching, with *one to one* communication (Morcellini, Rivoltella, 2007), Being based mainly on e-learning teaching practices, they require a specific learning to all actors involved in the process, from teachers to students (Fabbri, Melacarne, 2015), Within it, the technological infrastructure, the platform for provision and use of teaching, appears to be of strategic importance because it influences the accessibility and quality of services provided and it determines, on the basis of the level of interaction amongst different participants, the plasticity of the entire model.

2. From the model to the educational practices

In the process of analysing educational innovation, the possibility of shifting the focus from the features of the model to the practices constitutes an important moment for the understanding of the innovative potential and of the related generative mechanisms (Dewey, 1993). The proposed case study is that of the semi-presential virtual classroom, organised through a two-hour per day online seminar, from Monday to Friday, for two weeks followed by face to face seminars during the third week and by the final exam. The analysis of the semi-presential virtual classroom may be developed in three distinct phases, the programming of the experience, the online teaching experience, the face to face teaching experience.

The programming phase outlines already the characteristics of a participatory learning model (Johnson et al., 1996). It is a phase developed online in which the class is formed, all the participants are introduced, objectives are manifested and the rules that constitute it are made explicit. During this activation phase of the educational experience the objectives of the various participants tend to identify themselves and the level of public narration-representation of self is well evident.

2.1. The online educational experience

Initially, the online educational experience reminds one of the standard face to face lesson, it follows the communicative scheme *one to many*, but this first moment is soon overcome by a participated educational experience; during the learning of which it is mainly the teacher who manages the role of promoting and regulating the participation of the students. The latter can intervene through messages and chats and progressively learn to participate, initially, showing approval or rejection and answering the teacher's specific questions and, subsequently, learning to write comments and ask questions (Taylor, 2006).

Participated education in a virtual environment requires the teacher to train a competent community, i.e. a community of experts in that specific discipline whose members have the task of explicitly or tacitly monitoring the learning content. Initially, it is the understanding of the usefulness of participation that drives students to intervene; gradually, it will be the attention that the teacher will reserve for that intervention, its relaunch, his ability to contextualize the intervention in relation to the program, the discipline, the student who intervenes and the whole class, to bring out a participation that is less utilitarian and more appropriate and aimed at offering the entire class the personal contribution of the individual student. Compared to the participatory dynamics found in real classrooms, more charismatic forms of power and more recurrent and more intense generative mechanisms of mutual influence emerge in the virtual classroom. The teacher's difficulty, probably also stemming from the form of student participation, the message written via chat (Ceccherelli, 2012), is to promote a participation that manifests forms of individual reflections. The general tendency, fuelled by mutual influence and form of participation, the written message, is to adapt to the judgment of others, to escape the costs that the manifestation of deviance from dominant thought would impose. It is the progressive learning of the role of the student in the classroom that increases, through his interventions, the knowledge of all and it is the attention that the teacher devotes to his participation that encourages communication by students of individual reflections. As noted by Galimberti (2018), the tendency to homologate communications, especially online, is accompanied by reactive forms of participation that express an emotional state; as if contemporary communication could be above all emotional, almost inscribed in a frame, in a communicative way in which the emotional register has occupied all the available space. The mechanisms of participation that are activated in the virtual classroom seem not to escape the spread of the model of emotional communication. As the teaching experience progresses, communication results in multiple relational forms between teachers and students and between the various students. After the first week, the frequency of communication between students is almost constant, students agree on many topics, perceive themselves as class members, reach a very remarkable level of collective identification. The teacher's effort during the online experience is above all to get to know the different students, and to bring out, as if to make them discover themselves, their different skills, their different way of being, it is an effort aimed at distinguishing and differentiating what, only in appearance, looks identical. Such an effort requires educational activities to support-complete those carried out online, for example, analysis by the teacher, especially at the end of the online lesson, of the interventions present on the chat, correction of the exercises carried out by students. The analysis of online experience reveals two different mechanisms of cohesion active within the class. The first is a mechanism of de-differentiation and is at the limit of emotional fusion, the second is instead a mechanism of differentiation and progressive acquisition of one's own role both on the part of the students and on the part of the teacher.

2.2. The face to face educational experience

Designed as the final moment of the online educational experience, the face to face teaching reveals an unexpected analytical value. The face to face teaching works a new redefinition of the educational situation and immediately performs a function of verification and check of the authenticity of the pre-established educational relations. It immediately spells out the teaching situation as a context in which power is continuously exercised and legitimized. With the bursting of spatiality and of moving bodies a new communicative and

domination context is created, the exclusivity of forms of online communication, is now replaced by the heterogeneity and multiplication of communication forms, the bodies constantly speak and form relationships that are inscribed in a preformed mutual knowledge, in roles, which the corporeality makes even more manifest and defined. Face to face teaching practice with the possibility of immediately connecting a thought, a judgment, a question to a defined subject, turns into a scheme of individualization, differentiation and understanding of the mechanisms of active domination. It is face to face that the work of the teacher of authorization and care of the word, already carried out online, has its manifestation and acquires its political sense. Students' participation in the educational experience is triggered by complex mechanisms in which the experience of similarity, uniqueness and belonging is carried out through reciprocal comparisons, refraction and reflections games. The care towards singularity and particularity, activated in the course of online teaching practice, now has the possibility to become efficient through the progressive awareness of the learned contents and their connection with the experience of the self and otherness. The planning of the various students, who, in the last lessons, feel the need to recount about their working conditions and their desires to change them, who feel the need to give advice to colleagues, who discover similar living conditions, springs from the attention to the particularity of the self that they experiment over the course of online teaching and that in face to face teaching appears clearly as a distinction of roles, and as an experience of difference and similarity, as a constitutive look of a competent new individuality. As if the attention to particularity, the acceptance according to Berthelot's definition (1982) of the claim of student centrality, anchored to their lifeworlds, was the hook through which the teacher and students can discover the historicity of their living and learning condition. The face to face teaching practice reveals how the entire educational path is aimed at the discovery of the historicity of individuals and of the educational experience itself, as if the experience was first discovery-verification of one's own historicity, understanding as Gauchet (2005) would say of the *point dont on parle*.

Concluding remarks

The analysis of the semi-presential virtual classroom in a telematic university helps to highlight the ways in which university knowledge can generate democratic thinking in contemporary societies. Having the assiduity of daily study been lost with its multiplication of knowledge and the perception of the functionality of training courses in relation to the future exercise of defined professions, the possibility of developing a critical thought appears connected to the experience of care and attention to the particularity of the self, to a common learning of the historicity of life worlds and the knowledge that students and teachers can develop together. The virtual classroom experience is ideal as it shows how the virtual environment and communication channels change the content and meanings of communication no less than a physical environment. The virtual and in-presence educational experiences reveal the difficulty of participating in collective forms of learning and in a complementary way the ease of the formation of forms of mechanical solidarity in which emotional adhesion defines the belonging of the individual to the group and the identity of the group. It is the experience of attention and care towards singularity, in the sense of proof, attempt, mutual discovery on the part of the teacher and the student of their historicity that can arouse critical abilities and the desire to participate in individual and common projects.

The analysis of the institutional conditions for the creation of educational contexts in which to experience care towards the Other remains an open question which the case study presented merely highlights the importance for the promotion of the political condition of individuals and this both in telematic as well as in traditional universities.

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Convergence between Formal and Informal Learning Practices: State of the Art and Historical Heritage

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Keywords: *Activism, Experience, Informal learning, Transversal Skills, Third Mission*

Introduction

For a long time, Informal learning suffered a mechanical and simplified definition, as a category opposed to formal learning: it was in fact intended at a space-time level, as a complex of outdoor activities, carried out outside school walls, and outside a certifiable path.

If in the field of vocational training validation systems have been arranged at European level by CEDEFOP (2017) to test and to certificate skills and abilities acquired through individual experience, however, many third sector initiatives, volunteering, personal interests and creative activities usually are more problematic in being identified and formally attested, and require a substantial change of didactics and educational perspectives. In any case a step change is in progress at the moment: recognizing the informal learning formative basis means, in fact, becoming aware of the profound changes technologies have introduced in the educational world, to the point of blurring the borders between informal and non-formal (the structured but not certified) learning paths, and more generally between formal and informal ones.

1. Creating a bridge between formal-informal learning: technology, media and learning activities

In 1960 Marshall McLuhan already theorized the radical learning system transformation triggered by communication media: in *Report on Project in Understanding New Media*, commissioned by the Office of Education, USA, - the first draft of his famous *Understanding Media*, 1964 - he indicated how the media environment - in particular TV - shapes our sensory system, overheating senses, such as hearing and touch, and changing perceptive capacity and living environment. For young people, trained by the new electric media, from cinema to television, a fragmented, mosaic-like perception is 'normal', and no longer the logical-sequential Gutenberg vision of the medium 'book'. Therefore, it is not possible to set the didactics still looking from the rear-view mirror of the old media: «Until we have mastered the multiple grammars of the new non-written media, we shall have no curriculum relevant to the new languages of knowledge and communication which have come into existence in the new media. These new languages are known to most people, but their grammars are not known at all. We have 'read' these new languages in the light of the old. The result has been distortion of their character and blindness to their meaning and effects» (McLuhan, 1960: 1-2).

It is necessary to include the media grammar and language in learning to understand how they work. In *City as Classroom* (1977). McLuhan theorizes the overcoming demarcation between the space-school and the so-called 'external' space, now interacting and integrated in a unique learning environment. He anticipates the wide educational horizons unfolding through the telematics advent, focusing on a productive learning flexibility that overlaps with formal education.

1.1 Informal learning and transversal skills

Following McLuhan, not only does technology involves the need of mastering the software and ICT tools up to programming competences, but also implies the capacity of understanding the media language variety, their communication mechanisms, how to re-use them creatively to produce new objects (Bolter, Grusin, 1999). Even when limiting the meaning of informal learning as self-directed, incidental, tacit and deliberative (Eraut, 2004; Schugurensky, 2000) it is crucial to consider how informal digital practices enable those transversal skills to be the training basis, even when in an unorganized manner: the media and information literacy skills (content critical selection to work on media languages); the cognitive skills (problem solving, critical thinking and autonomous learning); and the psychosocial/soft skills (teamwork, objective definition and achievement, ability of listening and self-ruling).

This progressive welding between formal and informal learning over the last decade has opened up new horizons for a hybrid system. Going through the official documents, we notice interesting shifts in the informal learning definition. In 2010 the Council of Europe codified the informal learning according to the daily environment of experiential activities performed by «family, peer group, neighbours, encounters, library, mass media, online media, work, play» (2010: 6-7). In 2011, UNESCO (2012) links this environment to the interests expressed both in individual and group dynamics: on a self-directed, family-directed or socially-directed basis. The latest *EU Council Recommendation* insists on the informal learning relevance for transversal skills acquisition «in supporting the development of essential interpersonal, communicative and cognitive skills such as: critical thinking, analytical skills, creativity, problem solving and resilience that facilitate young people's transition to adulthood, active citizenship and working life» (EU, 2018: 3).

These definitions involve two important emphases regarding informal learning role. First of all, active citizenship, planning in the third sector, and constructive exchange between different cultures play a central role in addition to personal interests; a perspective confirmed by the Council of Europe (2018), fostering the citizen formation and the defence of the democratic institutions foundations. Secondly, informal learning may become the opportunity to exercise soft skills, increasingly required even at the entrepreneurial level: since 2010 and in projection up to 2022, the World Economic Forum (2018: 12) has seen the growth of some soft skills in the Top Ten Skills list required by the labour market (as active learning and learning strategies, originality, initiative, leadership and social influence). In addition, informal experience may support the eight basic learning pillars of Lifelong Education (EU, 2018): alongside literacy, multilingual, digital and mathematical, engineering and science competences, personal, social competence and learning to learn competence, citizenship and entrepreneurship competence, cultural awareness and expression competence are particularly underpinned.

1.2. Matching formal and informal learning

Formal learning might incorporate the informal one according to a double movement: on the one hand, through a process of informal activities integration

(inclusion learning), which may become foundations for learning communities in the classroom and in networked communities of practice, starting from individual and/or group experiences. On the other hand, through processes of 'exit' from the formal (performing learning) to adhere to social commitment informal projects, such as the territory care, the intervention in degraded environments and all activities of mending the social fabric: common and bottom up projects are to be enhanced through involving the neighbourhood in order to smooth out cohabitation and exclusion conflicts. It is a sort of integrative learning (Bennet, 2012) expanding in the territorial reality and supporting the artistic inclinations.

How to create a formal-informal convergence, giving life to a networking learning? First of all, through learner-centred didactics, encouraging a project-based learning and supporting a community collaborative construction of knowledge objects. Moreover, through a learning practice implementing transversal skills according to digital and multidisciplinary paths for understanding and rebuilding the social tissue.

At this point other questions arise: *when* a contrast between formal and informal learning has actually occurred? And *which* innovative theories and experiences have tried connecting the two learning systems along the twentieth century?

2. Archaeology of the formal-informal dichotomy

The contrast between form and life is the basis of modern education evolution since Rousseau, who in the same year, 1762, published two fundamental books from an educational viewpoint: *Le contrat social* on the respect for norms and civic forms, and *Émile* on the life experiences and inclinations. The work of rationalisation and knowledge transmission, which the school includes among its primary missions, requires an inevitable distance from the 'real' world: the school becomes a place of knowledge 'secondaryisation', and so, of formalization (Damiano, 2013). In the long run, however, this distance tends to undermine the relationship between the individual and the knowledge objects, making the school often scarcely attractive. Regulating this distance in a different way is precisely the strategy activists of the first half of the twentieth-century recommend, starting from experience, from the action on reality: what begins in the limited space of class, through experiments and practices, necessarily ends with questioning the entire organizational structure, and the differences between the two learning approaches.

Many authors have contributed over the years to the curriculum reformulation, probably the most stringent constraint for active practices implementation and dissemination. The didactics inspired by Piaget, for example, based on intellectual research, and implemented above all by Hans Aebli in the Sixties and Seventies, requires an organisational reformulation, because the curriculum should be reduced to some essential subjects, an adequate equipment should be requested and freedom of teaching should be guaranteed. Moreover, this discourse is taken up by Morin according to the seven knowledges necessary for the education of the future (1999), moving towards the metacognitive, holistic, ecological and ethical dimensions.

Greater institutional freedom and lesser presence of curricular limitations have facilitated methodological experimentation in educational contexts such as kindergartens, holiday centres and full-time organisations, providing many concrete examples. The active method experiences are impressive from this point of view, serving as a model for further practices and offering some ideas for

today's debate (Bottero, 2014). They also tried profitably to bridge the gap between form and life, between obligations and freedom of action.

2.1. The 20th Century towards a formal-informal learning convergence

Maria Montessori has founded a pedagogical and didactic method still used today in many schools. She introduced on the one hand 'practical life exercises', and on the other one she modified the traditional school setting by adapting educational spaces to childhood needs.

After cooperating with Montessori, Helen Parkhurst extends her action plan, the so-called Dalton plan. In this case the concept of individualisation plays a crucial role: once fixed an initial commitment through a monthly contract (formal dimension), the pupil is free to organize his study time and modality (informal dimension).

For Ovide Decroly, education arises from the student's needs and previous knowledge. He replaces subjects with pivot ideas, centres of interest developed on three levels (observation, association, expression) and addressed through expressive and performing activities. Teacher does not plan activities but directs and advises the students during the observations.

In Roger Cousinet's *free-group work method*, students become free to select one of the activities prepared by the teacher and to carry it out for as long as they consider necessary. The teacher organises the learning environment and tools. The activities are divided into 'creative works' (manual and artistic activities) and 'knowledge works' (science, history, geography, arithmetic). All activities are based on real needs, which may arise from other executed works. There are no easy or difficult activities, but activities being of interest (and therefore increasing the internal motivation) or of no interest.

William H. Kilpatrick's *project method* extends the field of action compared to Dewey, who only focuses on the development of thinking. Teaching activity always starts from interest and takes the form of a 'project'. Hence the rejection of the rigid didactic organisation by study subjects. A teacher could gradually transform the traditional classroom activities in project works, reserving at least half an hour a day to free work and keeping some activities out of the program. The attempt at balancing formal and informal experience is evident.

For Carleton W. Washburne, another Dewey school exponent, student requirements and interests must be taken into account too, but without forgetting social needs. With the Winnetka schools he divides the curriculum into *ad hoc* projects and developing programs. The former supports common activities programmed for learning essential knowledge and skills and based on the student's previous knowledge and willingness to learn that content. The latter encourages elective activities going beyond personal interests and attitudes and fostering social cooperation and free expression. The choice of elective activities is free, but in any case, they are included in the curriculum (Electives are not Extras). The overall framework is not unitary, with a clear separation between intellectual skills curriculum (individualized and evaluated), and the curriculum for creative and practical skills development (learning from experience, not evaluated). The incompatibility between formal and informal is declined under another formula: the dichotomy control/freedom.

Celestin Freinet's techniques are very significant and still relevant. He does not create opposition between play and work: *work-play* (a series of activities showing a definite aim and tending towards specific, but not constricting results) gradually replaces *play-work* (more suited to vital and social needs). He starts from the educational setting and tools reorganization, giving more space to the laboratory, with indoor and outdoor activities. The teacher is a consultant and facilitator, building an annual didactic plan on which he elaborates individualized

weekly plans. Each pupil has got a wide choice (informal dimension) within the annual plan constraints (formal dimension) and undertakes to carry out the activities on time.

The author cited more than others as methodological inspiration is David Kolb, who has in Jean Piaget, John Dewey and Kurt Lewin his declared theoretical models of reference. A broad set of techniques and methodologies, especially for vocational training, make more or less explicit reference to experiential learning (Kolb, 1984).

More recent is the system of laboratories proposed by Francesco De Bartolomeis, inspired by Dewey's pragmatism. The school should be organized as a laboratory structure through planned use of external social spaces, with the perspective of an integrated training system together with the school spaces. The rigid subjects succession is eliminated, but not the frontal activities, favouring discussion and research, both guided and autonomous, and giving maximum flexibility in the use of the space-time setting and in collaborative activities.

Conclusions

The active method models indicate scenarios of convergent didactic practices going towards the dialogue between school and extra-school reality, in methodological and organizational terms, on a double level, *micro* (in the classroom) and *meso* (in the school). Dialogue also means mutual contamination. These are two extremes that must meet: on the one hand, the formal learning gives shape to the informal one, setting the formal perimeter within which the informal skills develop; on the other hand, the formal learning becomes a form from the informal one, requiring a rethinking of the organizational and evaluative structure.

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From Practice to Learning: Computer Science the Other Way Round

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Keywords: *Computer Science, Learning strategies, Coding, Informal teaching*

Introduction

Computer science (CS), considered in the past as a formal discipline, has changed today due to the introduction of computational thinking in primary and secondary school. This change requires a new style of teaching that is both simplified and enjoyable. New tools for coding have paved the way to a different style of teaching and learning CS. This new way, in our view, can be a model for all of school pedagogy since it allows for construction of knowledge by the students themselves.

Learning CS by learning 'instructions' works when the self-motivation of the learner is strong. This method is not effective for less motivated students. Drop-rate in CS courses is alarmingly high (Beaubouef, Mason 2005; Computing Research Association, 2011; Nager, Atkinson 2016). Moving from 'instructions' to working smartphone apps or videogames, as the current pedagogy demands, is not straightforward.

A new approach to coding, mainly inspired by *MIT*'s Scratch programming language that directly starts from videogames and smartphone apps (Maloney et al., 2010), has transformed the formal CS education delivery mechanism to a discovery- and play-driven approach. Students see and manipulate visual objects (not numerical data), organize their behaviors by assembling drag-and-drop scripts (not awkward syntax-based code), and see every step of their 'program' visually updated in the programming environment.

This new informal approach, driven by need and self-discovery, can be a model of pedagogy that enables a better learning of all school curriculum.

1. The high dropout rate in standard computer science courses

The new alternative ways of teaching CS has even proved successful in learning other school topics (Federici et al., 2018); this in turn also has the potential of reducing the high drop-rate of CS courses.

In the last decades CS teachers have modelled their lessons on the style followed by their own teachers to teach them the art of making a PC.do what they want The first step was always creating 'variables' -elements that can store values- by assigning them initial values, then modifying those values and finally showing them on the PC screen. This can be done for example by the following very short code written in the Basic programming language

```
DIM A AS INTEGER
A = 1
A = A + 1
PRINT A
```

All this code does is to show the value 2 on the screen. When looking at this example -where we have a code that creates a variable named A, then stores the value 1 in the variable, then increases the value of the variable by 1 and, finally, prints its value on the screen (that is the value 2) - many students think 'why are we not simply writing PRINT 2?!'.

Of course, asking this question means that a lot of very important computer programming concepts -such as flexibility, dynamic behavior, reuse and automation- have not been transferred to them yet. So, what they really learn at this point is that they must memorize something that they are not really understanding in order to program a computer.

It is not surprising that the number of students that drop their CS majors in their first year of college is always high all over the world. The dropout rate is over 30% in Italy and in the United States. It is over 10% (that is the highest dropout rate in the first year of college in these countries) in Great Britain and China.

Since CS is extremely engaging to a lot of enthusiast self-made programmers and gets astonishing results -such as incredible high-quality-graphics videogames produced by the entertainment industry- there must be a better way to teach it.

2. Learning computer science the hard way

The standard approach in teaching computer science has remained the same for the last 30 years. The sequence of arguments in many schoolbooks is the same: starting with binary arithmetic (that is adding numbers by using only digits 0 and 1); illustrating the components of a PC, then the basics of operating systems, and finally computers networks. Students learn to engage with the computer only when they have gone through hundreds of pages of what a computer is. Unfortunately, what they see at this point is usually the following, cryptic piece of code written in the C programming language:

```
#include <stdio.h>
int main(int argc, char** argv) {
      printf('Hello, World!\n');
      return(0);
}
```

All this just to show up a simple greeting such as 'Hello, World!' on the PC screen. And when they make simple errors, like missing a single syntax element like a parenthesis or a semicolon, the result is simply nothing. The whole application crashes. This quickly frustrates the students. To even get a really uninteresting result, they have to learn (in advance) a lot of concepts (and memorize a lot of unknown sequences of characters and symbols) to avoid the risk of getting absolutely nothing.

2.1. Learning Loops and Functions by formal teaching

After learning how to write something on the screen, the students discover the loop instruction `for`. They are shown a C program that adds up 10 numbers entered by the user:

```
#include <stdio.h>
int main(int argc, char** argv) {
      int number, sum = 0;
      for(int i=0;i<10;i++) {
            scanf('%d',&number);
            sum = sum + number;
      }
      printf('The sum is %d', sum);
}
```

The meaning of the looping operation is formally explained to them as «a sequence of statements which is specified once, but which may be carried out several times in succession. The code inside the loop is obeyed a specified number of times, or until some condition is met, or indefinitely»

They are not told that they can get the exact same result without using a loop, just by adding multiple times using the same sequence of instructions:

```
#include <stdio.h>
int main(int argc, char** argv) {
int number, sum = 0;
scanf('%d',&number);
sum = sum + number;
scanf('%d',&number);
sum = sum + number;
...
scanf('%d',&number);
sum = sum + number;
printf('The sum is %d', sum);
}
```

This process may not be convenient, but students get the same result without learning any further programming concepts. Students understand it well as this is an immediate extension of the intuitive concept of sequence of instructions, where instructions are executed from top to bottom. They still don't see the need to learn more, they get the desired result without putting in more effort.

Students face a similar problem when instructed that they can add two numbers by creating a `sum` function as in the following code

```
#include <stdio.h>
int main(int argc, char** argv) {
      int number1, number2, sum;
      scanf('%d',&number1);
      scanf('%d',&number2);
      sum = sum( number1, number2);
      printf('The sum is %d', sum);
}
int sum(int a, int b) {
      return( a+b);
}
```

instead of using the following, much simpler code, where they use the `+` operator to add `number1` and `number2`

```
#include <stdio.h>
int main(int argc, char** argv) {
      int number1, number2, sum;
      scanf('%d',&number1);
```

```
        scanf('%d',&number2);
        sum = number1 + number2;
        printf('The sum is %d', sum);
}
```

They carry out this function only after learning the formal definition of a function, that is «a sequence of program instructions that performs a specific task, packaged as a unit that can then be used in programs wherever that particular task should be performed» But why should we avoid repeating the same code more than once, or should we avoid using an existing operator and create instead a function? There are not many good reasons yet to do this. It then falls upon the teacher to present the same concepts in an interesting and, more importantly, logical manner.

3. Learning computer science the soft way

3.1. New environments to learn computer programming

In the new environment, specifically created to learn computer programming in an enjoyable and engaging way, such as Scratch, students do not need to create boring programs that merely handles numbers. Students can very quickly create multimedia interactive games by simply dragging and dropping instructions represented by colored blocks that clearly demonstrate their meaning expressed in a natural-language-like style (Figure 1). Everything is under the eye of the programmer. Making mistakes is simply not possible; they just have to snap blocks together. There is no syntax to be remembered.

The blocks are used to describe the behavior of interactive elements represented by colored pictures signifying both characters and the backgrounds in which they act. Here the students' use is not merely limited to numbers, such as 10 or 0, or to programs that use only mathematical formulas such as 'sum = a + b'. The elements handled by the programmer are 'physical'. They can see those elements and move them around, like they would do with real physical objects.

3.2. New environments to learn computer programming

Is it enough to replace numbers with multimedia objects and Keywords with draggable colored blocks? Scratch is appreciated by young kids (Federici et al. 2018). But is it easy and useful for everyone? Is it easy even for non-technical teachers should they introduce it in their classes as an educational tool?

We ran several experiments on groups of 10-20 k-1 to k-5 teachers of both humanities and hard sciences. The teachers, regardless of their group, discovered the important elements of Scratch in an unsupervised self-teaching session. All of them at the end of the session were able to build simple working projects (Federici et al., 2015).

Each session lasted 2 hours. This time is comparatively shorter with respect to that required to learn all the elements of a complex app by means of tutorials, manuals, etc. Moreover, by discovering the elements of the Scratch environment by themselves, the teachers could remember the function and position of each element.

3.1. Classic vs new languages for computer programming

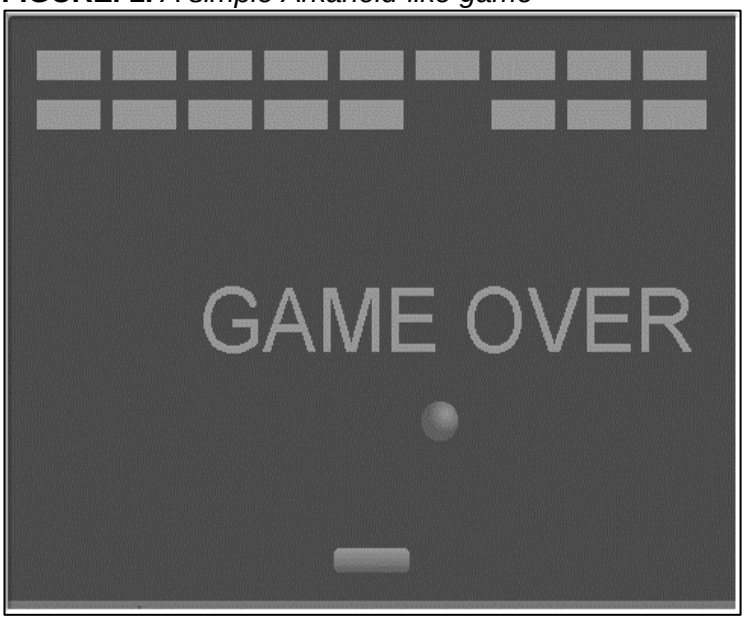
If the new environments and languages are so much better for computer science learners, why do CS teachers still stick to the old way of teaching computer science? The reasons seem historical. Computer science books have only been slightly updated in the years, mostly in their details less in the content. The

language has changed from BASIC or Pascal to C. The only real difference is just a matter of mere syntax.

3.2. From informal to formal teaching of loops and functions

Can the new programming environments, specifically designed for kids, be used to easily teach the fundamental concepts of computer science? The answer is yes. Starting from a naïve use of programming languages based on self-teaching, we can move to more thoughtful usages of programming languages that can allow students to build more complex projects with less effort. This move is guided by the teacher who can stimulate the students to learn new programming structures that lessen their burden. This can be done very easily by showing, for example, a simple game Arkanoid-like, were users must destroy several bricks by using a ball and a paddle (Figure 1).

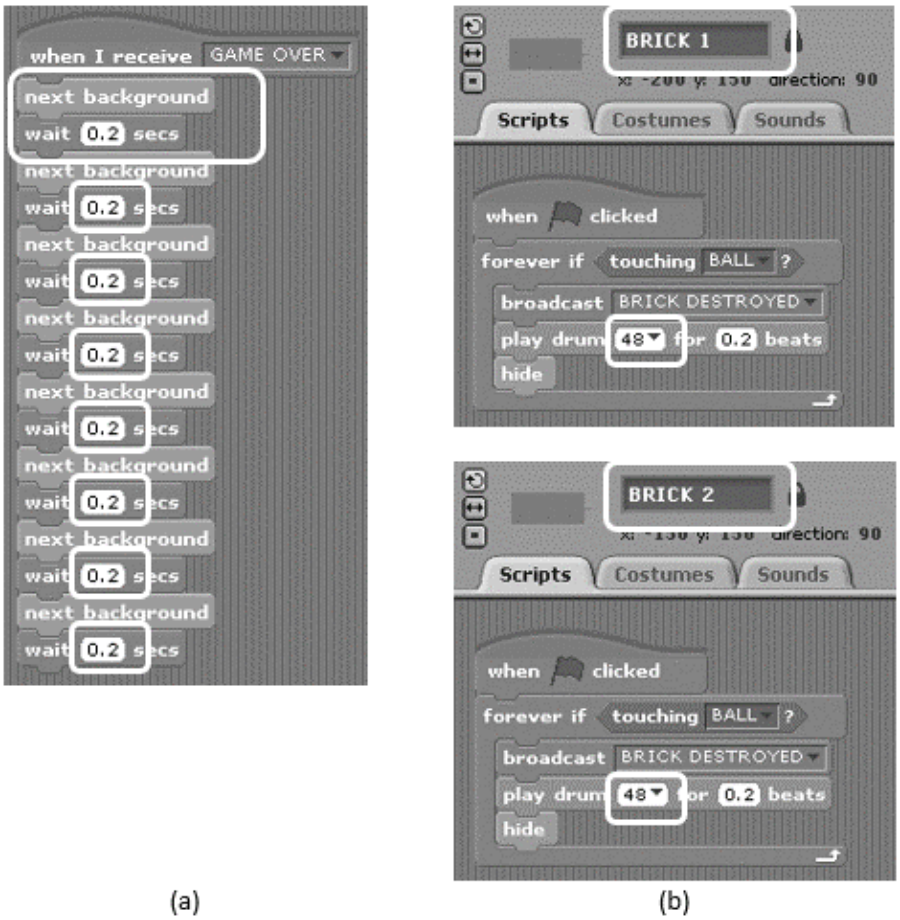
FIGURE. 1. *A simple Arkanoid-like game*



In this game the behavior of each character is described by a sequence of colored blocks. For example, when we want to animate an element by changing its look in each frame, we have a short sequence of two blocks, NEXT BACKGROUND and WAIT SECS, repeating many times (Figure 2, a). Similarly, the behavior of each brick is described by the exact same sequence of blocks (Figure 2, b).

Building the whole project is simple. We have to merely duplicate the same sequence of blocks many times. However, when we need to change a very simple feature of the project, for example when we want to make the frame-by-frame animation in Figure 1a a little slower, by changing the 0.2 value to 0.1, or we want to change the sound played when we ball hits a brick from 48 (Hid-Mid Tom) to 61 (Low Bongo) in Figure 1b, we have to repeat the same change many times. The teacher can then ask the students to experiment by looking for the perfect timing or the perfect sound in order to enable them to enact the same set of changes many times over.

FIGURE. 2. *Repeating blocks in a single sequence (a) or in multiple sequences (b)*



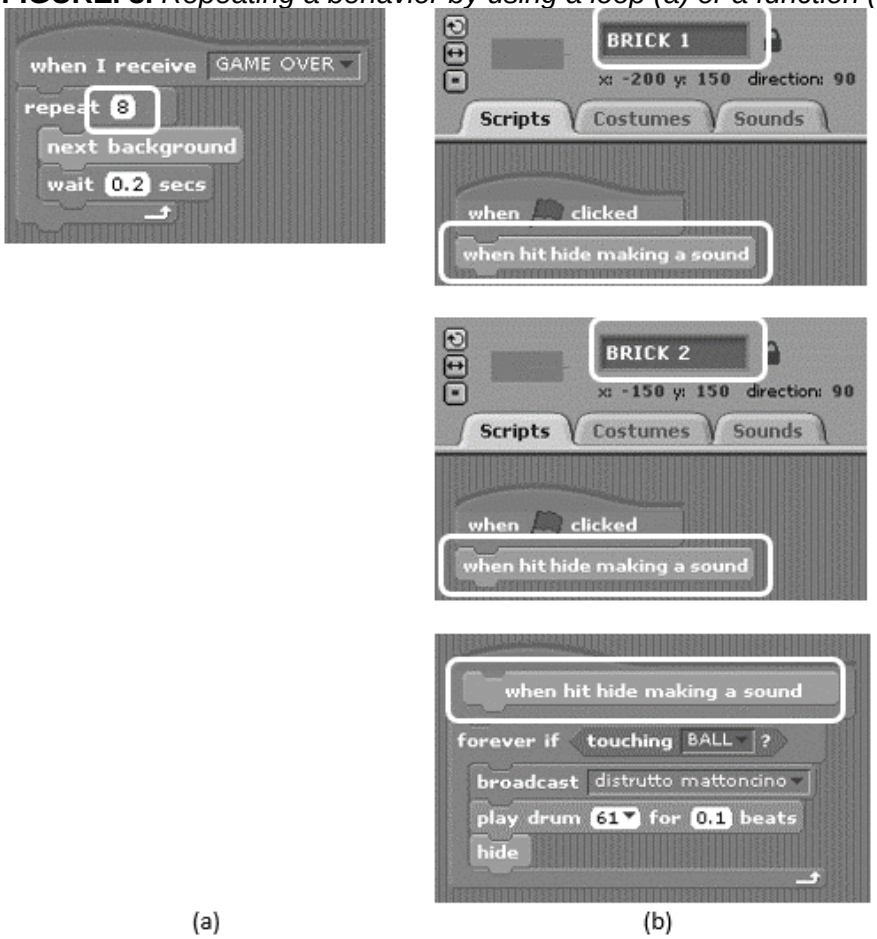
(a) (b)

At this point the teacher can remind them that in real life instructions are not repeated multiple times, for example when we describe a repeated sequence of actions in a recipe or the same sequence of actions in several recipes. It is thus quite reasonable to follow the same when we formulate instructions by means of a programming language. We can shorten a sequence of repeated blocks by using a REPEAT block (Figure 3, a) and we can shorten the repetition of a sequence of blocks in many characters by giving it a 'name' (Figure 3, b). So, in the Arkanoid project we are saying that a frame-by-frame animation is done by changing the picture (the 'background' in Figure 3a) many times and that the 'WHEN HIT HIDE MAKING A SOUND' behavior of each brick is identical for all bricks (Figure 3b). Making this kind of shortening is quite convenient when the number of repetitions get higher, as it happens in a complete project.

These two ways of shortening repeated sequences of blocks are the two basic mechanisms of 'loops' and 'functions' that we have already formally described in the top-down teaching strategy described in the previous paragraph by using the C language. So, the concept of looping is to the students just 'repeating actions' instead of having to list the repetitions one under the other by wasting a lot of time and space. Similarly, the concept of function is 'giving a name' to a sequence of actions, instead of repeating the same sequence in several characters by wasting again a lot of time. The students can create complex projects without getting frustrated by having to learn complex concepts in advance. Programming can still be fun and rewarding. Students can then get rid of new sources of frustration when they will have to make the same change

multiple times by learning how to 'repeat actions' and how to 'give sequences of actions a name'. That is by learning loops and functions.

FIGURE. 3. *Repeating a behavior by using a loop (a) or a function (b)*



(a) (b)

4. Better performances when learning computer science in an informal way

Building games is not the only way of acquiring important skills provided by learning CS. Moreover, learning computer science is not done in isolation. CS principles can be learned by using computer programming as a tool to learn other school disciplines in an interesting and -more importantly- deeper way. Computer science can be learned by using it as the new 'pencil and paper'. Starting from a given task (like learning history, learning a foreign language, learning science, mathematics, etc.) students and the teacher can identify the basic elements of this task and can then learn how these elements are related to each other by building 'tangible' digital elements whose behavior is described by sequences of blocks. When they build a working simulation of a given school topic, even in collaboration with their teachers, students really learn the underlying laws of the topic under consideration. The results of these different pedagogy of school topics are extremely encouraging. It has been demonstrated in an experiment about learning exponentiation -that is learning that, e.g., 2^3 is 2x2x2- that not only the students are more engaged during the lessons but they acquire the concepts learnt in a better and, more importantly, durable manner in the process improving their retention (Federici et al., 2018). This alternate

way of teaching computer programming has been successfully applied in other school topics like foreign languages and history (Federici et al., 2019).

Conclusions

Learning computer science is best begun informally followed by formal instruction that enables one to easily learn technical concepts like loops and functions. Results of our experiments show that students enjoy this form of learning. Following this method, students can acquire both concepts and skills and get interesting outcomes. We have shown that using learning strategies based on computer programming gives very good results even on other school subjects like mathematics, language, and history. Computer science does not need to be an arid topic, where teaching is only based on numbers and abstract structures. It can be taught by using 'tangible' elements and simple structures thanks to new programming environments that, even if designed for kids, have been fruitfully used by students at all levels, from elementary school to college.

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Up2University: A European Project to Integrate Formal and Informal Learning in Secondary Schools

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Keywords: *Informal Learning, Collaborative Learning, Technology, Cloud, Moodle*

Introduction

Up to University (Up2U) is a 36-month collaborative project coordinated by GÉANT which gathers 18 partners from 12 countries across Europe including NRENs, traditional and open universities, infrastructure providers and two commercial partners. The key objective of the project is to bridge the gap between secondary schools and higher education and research by better integrating formal and informal learning scenarios and adapting both the technology and the methodology that students will most likely be facing in universities. This initiative aims to respond to the requirements of a clear mandate from the European Commission allied with the provision of new cloud-based tools and services to enhance primary and secondary education in Europe.

The project entails the provision of educational applications, project-based and peer-to-peer learning scenarios and the facilitation of international interaction for secondary schools in Europe. Inspired by organic educational initiatives, such as Google for Education, Khan Academy, Up2U creates a flipped virtual ecosystem where students can learn at their own pace supported by social interactions, federated access and are able to exchange documents and other project-related multimedia content in a trusted and privacy-protected environment. The ecosystem is based on a well-known Learning Management System, Moodle. Moodle enables to create direct learning paths adapted to each different class or discipline, encourage collaboration between students, allows to embed easily external resources, multimedia integration, group management, marking workflows, peer and self-assessment, integrated badges, and other features. Yet, the mass media and the web make up the environment for a myriad of individual learning courses or units, or at least for the acquisition of knowledge 'chunks' that need to be organised and integrated with knowledge learned in the school curriculum. The web also makes it possible for users to reuse the information acquired, facilitating 'hybridisation' between experiences and knowledge acquired informally, competencies and experiences acquired in non-formal ways, and learning in formal environments, conducted with the aid of a mentor. Optimal use of non-formal and informal learning to complement formal education represents a key component of Up2U's ecosystem.

1. Pilot

Within the scope of the project a series of pilots at European level have been carried out by the various partners involved. The pilots intended to prove the applicability of the project on an international scale and the creation of critical mass in the use of the platform in an educational environment, as well as its importance as a tool to support teaching and learning activities.

The Pilot phase of the project consisted of a specific teachers' training for the Up2U model and a subsequent direct experimentation with their students. The proper and meaningful use of technology in education, in fact, is a relevant issue in modern society. Recent studies claim that the majority of teachers use technologies (e.g. Interactive White Board, personal computer, web tools and so on) to support traditional ways of teaching and learning, without exploiting their true potential (Harris et al., 2009; Lawless, Pellegrino, 2007; Sipilä, 2014). Why is this still happening? A potential reason implicated is the training that teachers experience. There is a general tendency to structure teacher training paths as courses in which the theoretical and methodological importance of such technologies is not actively linked to learning. Beginner teachers often learn about software or applications via 'how-to' lectures, gaining only passive examples of ways to use technology (Barton, Haydn, 2006; Tondeur et al., 2017). We instead stress the importance of letting teachers experience technology-mediated constructive learning so that they can challenge themselves in a new way of learning and teaching (Sansone et al., 2019). Introducing technologies is not, of course, sufficient to positively influence educational practices alone. Rather, technology should be used as a tool to mediate the construction and validation of students informal learning.

To compensate for the many limitations that often characterize teachers' training, the learning path we propose is therefore based on the Trialogical Learning Approach (TLA; Paavola, Hakkarainen, 2005) which integrates previous theoretical theories, such as collaborative learning and knowledge building. The TLA integrates 'monological' (with emphasis on individual knowledge and conceptual processes) and 'dialogical' (with emphasis on distributed cognition and the role of social and material interactions) learning approaches, with a third element: the intentional processes involved in collaboratively producing knowledge artefacts that are shared and useful for the community. Moreover, it makes possible to refers to students informal learning, thanks to the claimed strong connection with the external and professional world. The problem of how to measure and validate non-formal and informal activities has mainly been tackled in terms of vocational training. In recent years countless free learning objects and courses have been made available on the Internet in new non-formal systems: these are in particular massive open online courses (MOOCs) at a university level, going from sets of lessons to interactive courses, with final certification; and open educational resources (OERs), learning resources that can be created by individuals and by communities. In the international debate, the question of open educational practices (OEPs) is becoming more central, focusing on teaching strategies for reusing OERs: seeking new practices to use OERs to transform learning; OEPs to enable the construction, sharing and qualitative review of knowledge assets. The Up2U ecosystem is built upon two previous projects that addressed the need for OER repositories: EduOER and CommonSpaces.

There are, however, few reference points to identify a procedure for validating informal learning in a broad sense, namely: self-directed learning; activities developed based on cultural interests and entertainment (cinema, theatre); social engagement and community experiences. This is because such activities are deemed to be random, unintentional activities, or not organised as part of a learning path, but no less important, as they are in any case guided by a 'drive' to know things.

Since the informal experience emphasises the student-centred vision of teaching, then it should in particular:

- Be part of a project-based learning
- Enable transversal skills

- Stress multi-disciplinary aspects
- Lead to the creation of an object/product
- Lead to the creation of a 'community of practice'.

Technology-enhanced learning is de facto more and more a hybrid learning system where formal, informal and non-formal learning activities interact positively. Up2U proposes new directions, methods and a whole ecosystem to boost this spontaneous dynamic.

1.1. The exploratory study about the Italian Pilot

This contribution describes the exploratory study conducted on the Italian Pilot phase of the Up2U project to which several schools participated from different part of Italy. As mentioned, the pedagogical approach that characterizes the teachers' learning path proposed in the Italian case is truly experiential (learning by doing, learning by teaching) and is based on the principles of Project Based Learning and Collaborative Learning. Our Pilot is designed to enable teachers to concretely experience methodologies such as knowledge building discussions, peer review, role taking and the individual and collaborative production of artefacts on their own. A specific attention was devoted to let teachers practice techniques and strategies to validate informal learning, by the mean of a 4 steps strategies: 1) identification of the results of learning (learning outcomes), broken down by knowledge, abilities and skills of the non-formal/informal (Recognition);, 2) production of evidence on the part of the candidate (Documentation); 3) evaluation of the results of learning (Assessment), or validation; 4) certification of the results achieved. The Italian pilot has officially kicked off with a series of web conferences and live events organised in February 2019 from the Italian Research and Education Network (GARR) and Sapienza University of Rome who presented the Up2U project and how to take part in it to dozens of participant schools. The pilot has officially started on March with the first webinar introducing the Up2U platform and has been followed by webinars on the integration of formal and informal teaching, cyber security courses on Risk Analysis, Policy, Network and Systems Hardening and much more.

As part of the Italian Pilot, a contest was launched among the participating schools: the group of students who created the best multimedia product on the Up2U platform will be invited to present it at the Didacta festival, the most important education fair in Italy.The aim of the study here presented is to investigate the effectiveness of the teachers' training path. The research methodology is mixed and includes the use of semi-structured surveys and interviews.

1.2. Outcomes

At the beginning of the course, teachers expressed their expectations regarding the Up2U training:

- To increase pedagogical and technological competencies and knowledge ('Information about Moodle use'; 'improve my ability to use technologies to support learning and teaching');
- To get to know and exchange views with colleagues from different schools ('Learn from others' experiences').

Analysing the difference between the levels of self-efficacy perceived before and after the training, we found that teachers think their competences were generally improved (Likert-scale1-5).

More specifically, teachers feel they enhanced their competences in efficiently selecting and integrating media and technologies to improve their teaching practices (from 3,55 to 4, from 3,55 to 3,8). Perhaps even more importantly, after the training, an increase in teachers' confidence in being able to adopt

collaborative approaches and methods presented and experienced during the training activities has been registered, particularly Structured Discussion, Role Taking, Reciprocal Teaching (from 4 to 4,5, from 3,18 to 4, from 3 to 3,7). Regarding theUp2U skills, which represent the core component of our training, teachers feel more competent in supporting and enhancing practice each and every one of the four core student Up2U skills. Regarding the confidence with the specific technologies presented in the Up2U ecosystem, teachers reported feeling more confident in using the Up2U tools presented, with their confidence increased particularly for H5P, SelCont, KnockPlop and CERNBox.

Teachers' suggestions to improve the course relate primarily to (a) logistics and (b) instructions for tasks and tool use. About logistics, teachers commented on the timing of the course perceived as too short ('More hours of training would be needed'). About instructions or tasks and tool use, teachers asked for 'clearer information about the platform use' and to generally 'improve the forum management'. Apart from these two aspects, teachers gave a positive global assessment to the Italian training (average assessment 4.1 on a 5-point Likert scale), and 90 % will recommend the course to their colleagues. In addition, an open question at the end of the questionnaire enabled teachers to express their views. These comments related to a general definition of First Module as positive, and some comments showed that teachers especially appreciated the facilitators' competence, and the social interaction between the participants.

Conclusions

The teachers' high levels of active participation in the learning path were the first positive outcome of the Up2U Italian Pilot here presented. Qualitative data collected from participating teachers reflect their perceptions that the training has enriched their expertise in the field of collaborative learning, the use of technology and in promoting soft skills related to metacognition and creativity. This acknowledgement was accompanied by teachers' general satisfaction with respect to each activity in the training. Teachers reported their appreciation for the highly experiential emphasis, which allowed them to move from their prior perceptions of technology and collaborative learning to new, more positive perceptions, based on direct experimentation, and characterized by critical and more informed assessments. These changes in our teachers' perceptions of technology and collaborative learning represent the second major outcome of the Italian Pilot. To facilitate changes in teachers' perceptions, in fact, training paths must directly address participants' knowledge and technological skills as well as their attitudes and beliefs towards digital tools (Ertmer, 2005; Ertmer, Ottenbreit-Leftwich, 2013), maintaining a focus on technology as a vehicle that allows participant teachers to adopt innovative practices (Jonassen, 2006), and not only as the primary goal of learning.

Although this 'learning by doing' approach is recognized as challenging and effort-demanding, this approach has the potential to maximize the learning outcomes that can be achieved through Up2U's unique ecosystem.

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Building a Device for the Alliance between Families, Schools and Local Community to Face Early School Leaving. Atoms&Co International Project

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Keywords: *Early school leaving, Parent involvement, Community education*

Introduction

Atoms&Co project (Erasmus+ Programme) aims at encouraging the construction of a school learning community in which a plurality of actors can collaborate in the creation of a more welcoming) climate. A culture of participation appears as fundamental condition for achieving this goal. The Project, which involves Italy, Belgium and Spain seeks to develop a 'school learning community' (Epstein, Salinas, 2004) including educators, students, parents and local community partners as protective factor for early school leaving as well as a 'device' to facilitate their alliance with the school in this regard. The 'device' represents a way of testing strategies in order to encourage the construction of a culture and a climate of cooperation between school and family (Cotton, Reed Wikelund, 1987; Deslandes, Bertrand, 2004; Hoover-Dempsey, Sandler, 1995; Sui-Chu, Willms 1996). For the development of the 'device', qualitative and quantitative research methods were used, such as: a questionnaire addressed to the parents of the three countries involved in the project; focused discussion groups (or target groups) with families, teachers, trainers and educators; world-café to bring the voices of teacher-educators-parents into dialogue.

The Atoms & CO device is a repertoire of concrete examples that have been collected to support experimentation in schools. Therefore, it is not proposed as a guideline of practices to be replicated but as a collection of actions and methodologies to address participatory activities in different local contexts.

1. A tool for parental involvement

In the construction of the device, the working group started from the observation of a widespread difficult relationship between school and family at the European level, despite the presence of local good practices and positive experimental experiences carried out by different schools and associations involved in the Project. The device then aims at creating opportunities for interaction and discussion between schools / families / territories to develop a shared vision of inclusive educational processes.

It is based on certain premises, and notably:

- must be adapted to a particular local context;
- takes into account the approach characterized by the exchange of views between school and family and by the recognition of mutual expectations;
- promotes the co-planning and experimentation of participatory paths that can actively influence the quality of school life.

Several studies on the subject of school drop-out highlight the central role of families (Muller, 1993; Reynolds, 1992; Stevenson, Baker, 1987), their ability to be an active interlocutor in the dialogue with school organizations which, though decreasing in number, still remains a problem both in terms of individual schools and also national and pan-European education systems.

The device that needs to be used carefully, after conducting appropriate training and in-depth study by experts in the field of education and orientation, aims at achieving some macro objectives:

- Promoting active approach by the school, families and local communities with regard to the identification of pathways for involvement of families as a decisive factor in the learning and training processes of students;
- Promoting active participation of families, especially those with less rich social capital in school life;
- Promoting active role of the school as an important place/actor in the development of local communities;
- Creating places and facilitate processes for the co-planning of interventions with families, starting from listening to and enhancing their perspectives/strengths;
- Enabling the school community (systematically) to use a range of tools to actively address the problems that make the relationship between families and the school difficult;
- Experimenting and validating an organized set of tools to activate the participatory processes of families on issues such as trust and school/family communication, orientation, family participation in school life.

The device was not developed by a selected group of experts; on the contrary, it is the result of a complex and articulated path that facilitated the enhancement of different skills, experimented best practices, tools and approaches, all collected and organized according to a precise cultural and pedagogical design.

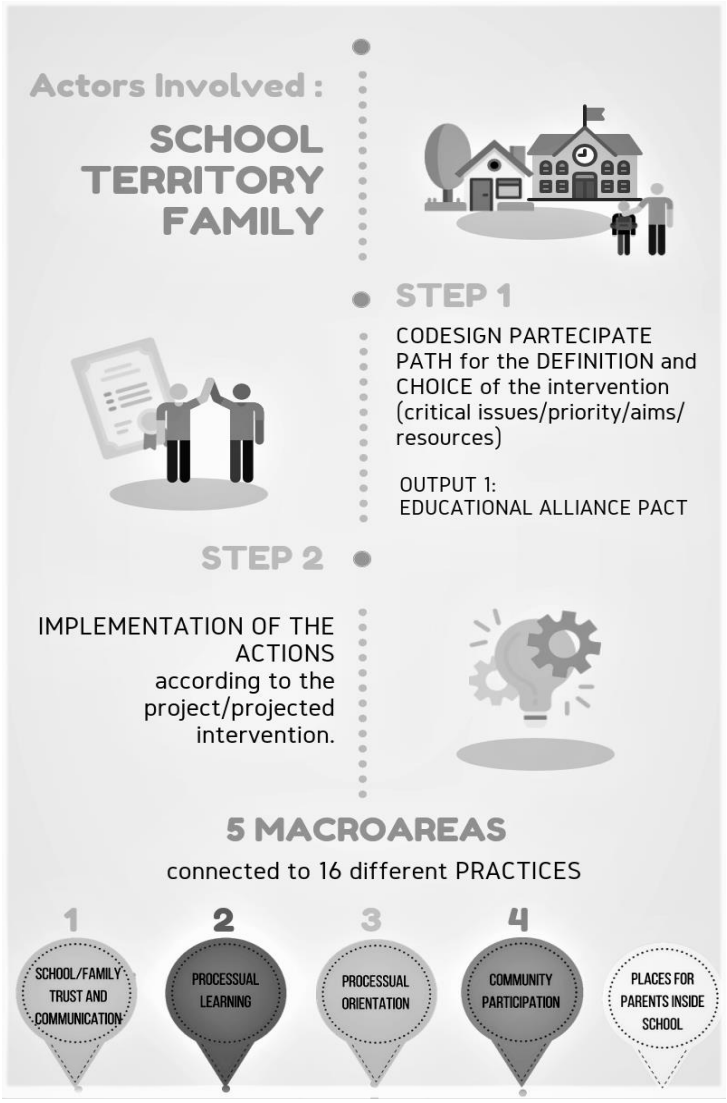
The trait that we are stressing here refers to the systemic/relational approach, which is built on active involvement of stakeholders who, in various ways, act pursuant to organised and complex pathways that can lead a student to abandon his or her educational career. A complex phenomenon such as drop-out, usually characterized by several factors, can be tackled not by focusing on interventions with school and/or student, but by considering and involving the stakeholders (school, family, services, volunteer work, associations) who in a locality/community can have a significant impact on different aspects of the problem. Therefore, these must be considered as potential resources/partners for those who have the institutional task of combating the phenomenon.

Managing the relationship between these stakeholders and promoting their development and empowerment from a systemic perspective, become an essential strategy in order to effectively tackle the problem.

The device is therefore not a 'turnkey' tool to be used in a more or less deterministic way by the school, but as a hypothesis of a path or a method trying to fulfil concrete needs of individuals who, in a specific local/school context may look for toolkits and techniques that have been effectively tested in different situations elsewhere. The co-planning, therefore, is the ultimate goal of the device, i.e., the process the device is leading to.

2. How the device works

FIGURE.1.



The device includes two phases.

The first phase (STEP 1) is aimed at promoting the active participation of families through the meetings, sharing of needs and knowledge between school and family and networking with the community and its resources. It supports the (re-)construction of trust bonds through drafting of 'educational alliance pacts' (of the duration of a school cycle), making explicit objectives, reflections and actions, with reference to each school year, that parents and teachers are committed to pursue jointly. It provides local working groups with a toolkit (tested, designed, collected by the transnational partnership) aimed at facilitating the active involvement of the various stakeholders (especially families) in the process of co-planning and therefore of identifying specific needs, objectives, actions to be implemented to improve the participation of families. The task of the territorial working group is therefore to identify the most suitable instruments for the situation (or to create/identify new ones to be included in the device) and to plan their provision.

Co-planning work is envisaged in relation to the following macro-areas that have been identified as the most significant in the research phase that preceded the development of the device:

- actions in support of parenting: aiming at enforcing parental understanding of children's problems related to the growing phases. Fostering families with low social capital in finding resources and paths that are supposed to support children's schooling.
- guidance actions for children and families: encouraging the dissemination and exchange of information on the functioning of school systems, the types and forms of training offers at national and local level and helping families to visualize their children's whole educational trajectory and the key decision points.
- school-family communication activities: fostering parents' understanding about school rules and legislation, create relaxing and more welcoming spaces for individual relationships, and which aim at sharing educational objectives and school evaluation systems with families and students.
- community activities: positioning the school within its locality, its events and its dynamics, connecting families to the resources outside the school, making the school available as space in which to cluster community's activities together.

To simplify the work, the device identifies some outputs for the co-planning process to be used by local stakeholders which should be the ones collecting the results of the process itself: the educational alliance pact. The output document represents the shared reference point for the activation of specific actions under Phase 2 of implementation.

The second phase (STEP 2) aims at experimenting specific interventions on the needs identified in the previous phase in order to implement the educational alliance pacts. This phase represents the heart of the device and consists of concrete implementing actions co-planned in the previous phase.

Operationally, the device offers an organized spectrum of actions (development of objectives relevant to macro-areas) that territorial groups can use/adapt/implement in relation to the co-designed frameworks.

The strategies that Phase 2 tries to outline are the result of a collection of best practices. They do not reinvent or codify a device; they recast specific, contextual expertise already developed by schools or by parental involvement, and try to make them available outside the contexts from which they originated so as to encourage the transition from the practice of participation to its acculturation – which is actually the underlying purpose of the Project itself. This operation has the advantage of making such experiences intelligible in their structure; yet, at the same time it runs the risk of losing sight of the more subtle qualitative elements that are crucial in explaining the success, or that are key to underpin participatory processes. These qualitative elements comprise the characteristics of the families involved, their expectations, the cultures and informal practices present in the area, the image and role that the school plays in the community, the compactness and identity of the area in which the school is located. By constituting a real added value of what we define as ‘best practices’, the qualitative elements become visible only through careful observation focused on relationships, and through a reflective analysis of experience by the participants. Only by taking these specific features into consideration rigorously is it possible to grasp what might be a plan to be used in other situations.

3. Family involvement in schools: a participatory approach that embraces the community

Relational and social dimension of educational and schooling processes have to be considered as pillars supporting the structure of the educational

partnership and the scholastic trajectory of individual students. Schools are understood as institutions whose function of encouraging the processes of cultural transmission, citizenship education and training in general is based on the school's 'agency' capacity. In this framework, the school represents, together with the other local actors, a specific space for social inclusion, as it participates in the definition of problems and solutions of different territorial contexts.

We know that the participation of families in the their children's school is inversely proportional to educational level; that drop-out is mainly concentrated in the transition between first and second level secondary school – at a very awkward point in adolescence – during the transition from the local neighbourhood school to one at city scale, and therefore during the establishment of a new relationship with urban surroundings. And all this happens at a time of important choices for the future educational orientation – and destinies – of children (Guerzoni, Tolomelli, 2017).

As the complexity of the school experience for children increases, the presence of families in the school decreases in terms of quality and frequency of the relationship between the teaching staff and parents. The decline in the presence of families in school life is one of the factors that increase the risks of dropping out. Students who drop out are also exposed to a number of risks linked to their social behavior during the period of general disorientation they may experience (e.g. dropping out of school involves a change in the routines and classic commitments of an adolescent divided between school in the morning and homework in the afternoon) and in dealing with patterns and styles of behavior learned in the peer group that are often contradictory (e.g. alcohol and drug abuse in the group).

Joyce Epstein asks «What is the difference between a professional learning community and a school learning community? A professional learning community emphasizes the teamwork of principals, teachers, and staff to identify school goals, improve curriculum and instruction, reduce teachers' isolation, assess student progress, and increase the effectiveness of school programs. Thus, the professional teamwork is important and can greatly improve teaching, instruction, and professional relationships at school, but it falls short of producing a true community of learners. In contrast, a school learning community includes educators, students, parents, and community partners who work together to improve the school and enhance students' learning opportunities. […] Research and fieldwork show that such programs improve schools, strengthen families, invigorate community support, and increase student achievement and success» (Epstein, Salinas, 2004: 12).

The Atoms&Co project therefore aims above all at encouraging the construction of a school learning community in which a plurality of stakeholders can collaborate in the creation of a more welcoming climate for students and families and make the schools spaces for greater participation and action for the community. Thus, participation becomes effective when a 'culture of participation' is affirmed and as such it becomes the outcome of a process of co-construction: the one that is achieved above all through patient daily exercise, the genuine willingness of institutions and families to improve their practice of exchanging views – often difficult and conflictual – and the possibility of responding in this way to the needs which families alone or school cannot satisfy, but which require a joint effort.

Participation is not a ritual, nor can it be treated as only as a moment of social pleasantry. In order to become a regular practice by families who live in difficult situations with their children – and who only manage to get by working shifts in organizations that provide fragmented and precarious employment; who must overcome linguistic and cultural obstacles in their relationship with the school;

and who no longer have experience of participation in public life in collective places – participation must be a genuine way to reflect upon the needs and external available resources (Lareau 1987).

It must therefore be understood as a resource for the transformative action of schools, families and local communities with a view to improve individual circumstances and collective contexts. Indeed, this paper argues that the attempt to counter the malaise of the individual child in schools is an opportunity for the analysis and for improvement not just of the educational but of the wider community. The resources for this process of evolution of the background to new needs expressed by students and families can only come from a broader conception of those already available, or which can be made available, within the relationships of the wider network of stakeholders involved formally, informally and incidentally (Ward, Fyson,1973) in the educational processes.

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Proximity and Shared Governance? Obstacles and Organisational Tensions in YG Program in Portugal

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Introduction

Following the last global economic crisis, one of the major structural problems Europe had to face was the substantial rise in unemployment rates. In particular, young people, on the one hand, and the contexts where the financial crisis was more intense and even led to external intervention, such as Portugal, Greece, Ireland and to a lesser extent, Italy and Spain, on the other, were considerably affected. Such rise in youth unemployment rate contributed significantly to a simultaneous increase in the number of young people not in education, employment or training (NEET), which have been monitored for some time as one of the major risks affecting contemporary young population. The idea that young people were increasingly disconnected from the major inclusion social structures, such as education and employment, motivated the building up of the EU largest policy and financial package in the field of employment, the Youth Guarantee Program (YG), launched in 2013 and implemented by each member state according to each country specificity. Expected to last until 2020, the program was aimed at ensuring all young people under the age of 25 years (in some cases, like the Portuguese one, the limit was raised to 29 years) receive a good quality offer of employment, continued education, apprenticeship or traineeship within a period of four months of becoming unemployed or leaving formal education. Although rooted in the field of employment, the program underlines the importance of education, stressing the idea that young people could and should receive appropriate educational and training offers in order to enhance their present and future employability, especially for those whose trajectories are marked with school failure and dropout.

In Portugal, mobilizing the principle of shared responsibility and governance of the public interest – in this case young people's problems and needs – the program was operationalized by building up a network of partners aggregating institutions from public and the solidarity economy sector. Supposedly, local actors would be the most effective to identify, register, guide and integrate young people, out of the system – unemployed or inactive – into one of the YG offers. This solution awarded a leading role to the professionals that perform social and educational work with young people, outside of formal educational structures, called to be mediators between young people and the system, thus questioning the role and meanings of the concept of education, its actors and institutions.

In fact, education is an increasingly comprehensive concept that goes far beyond school space and compulsory schooling. It involves a broad

combination of learning modalities and platforms: lifelong learning, e-learning, educating cities, community education, etc.

Moreover, closely related to this conceptual change is the expansion of education and training professionals. In particular, those who perform an educational work with young people are in large number, thus forming a network of experts (Boltanski, Chiappello, 1999) that reflects the broadening of collective responsibility towards young people's rights and needs. This educational community is no longer composed only of teachers and school managers, but it also includes other mediation experts (psychologists, community development professionals, youth workers…). Inside or outside the school, they work with young people, especially with the vulnerable ones, in activities leading to comprehensive training, personal and social skills development and contributing to the definition of a personal project.

Drawing on data collected in one research-action project (and its follow up) aimed to enhance the efficiency of the Portuguese network of partners, we intend to discuss the governance challenges that the network faced departing from the fact that although significant investment in the network, it didn't produce the expected results. We propose to identify and briefly discuss the obstacles and limitations that the implementation of the YG program faced in Portugal, crossing the perspective of the involved mediation professionals with the results obtained through documentary and statistical analysis of the YG reports and database.

1. Public policy and Youth needs and expectations: Youth Guarantee in Portugal.

As already mentioned, the YG was based on the principle that each country, according to the characteristics of NEET young people, should define a national implementation strategy. In Portugal, it relied on a local partnership network. Coordinated by the Portuguese public employment service (IEFP-Institute for Employment and Vocational Training), the National Plan for the Implementation of a YG (PNI-GJ) is rooted in an interministerial network composed by a set of nuclear partners responsible by the multiple measures offered within the YG (education, training and employment). (Figure 1).

The YG strategy relies on the principle of responsibility and governance shared by various actors, articulated in a network. There are two types of partners: attendance partners (composed mainly by public institutions, e.g. employment and training services; Centres for Qualification and Vocational Education, etc.); and registration partners (existing nationwide organizations: NGOs, municipalities, youth associations, etc), benefiting from the proximity and know-how of the targeted youth population.

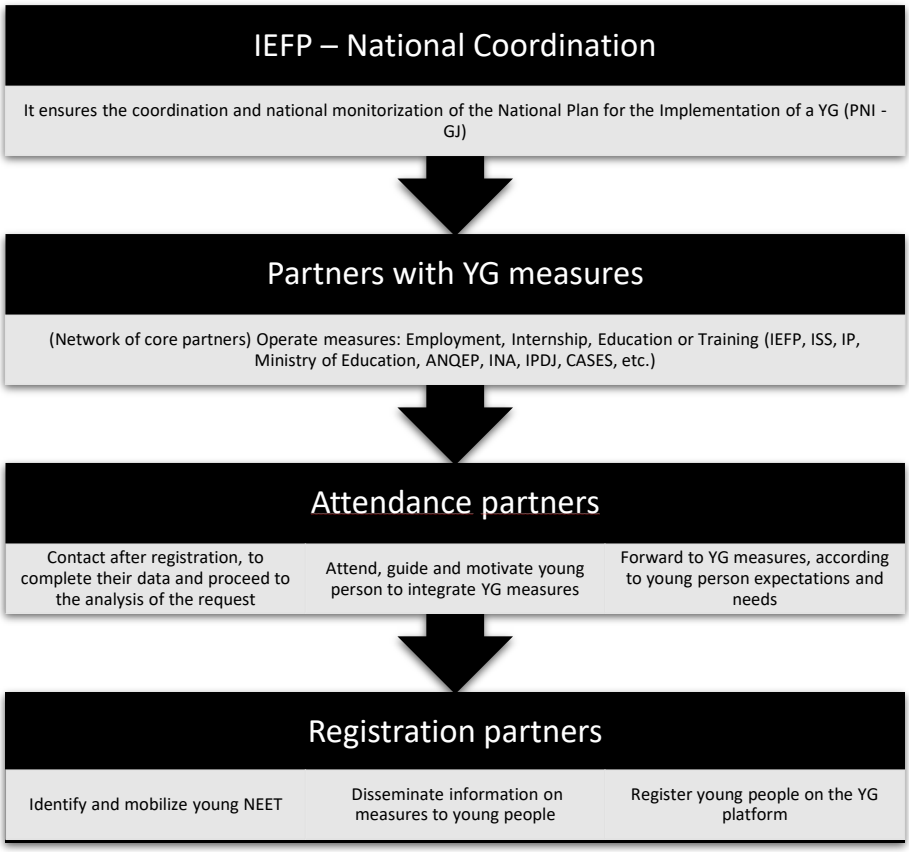
The strategy sought to engage the professionals that perform technical functions of social and (formal and non-formal) educational work with young people in the partner institutions, thus allowing a networked approach, acting in a logic of proximity (Breviglieri, 2005), to the various local actors (schools included).

Acting as mediators between young people and the system, the design of the network awarded these professionals the power to 'rescue' young people in the NEET situation (either by identifying/registering them on the YG online platform, or just by guiding them).

Despite being considered innovative, since it is structured by inter-ministerial and interinstitutional cooperation (EC, 2016), the Portuguese YG plan has faced several difficulties in its implementation and this formal cooperative work has not produced the expected results. Five years after YG implementation,

Portugal continues to face challenges in promoting early intervention and outreach of non-registered NEETs in public employment services and the number of young people registered in the YG since its implementation in 2014 is considerably low. A complex set of reasons contribute to understand the YG program poor results. In this paper, we will focus on the organizational difficulties that emerged from the dynamics of such a wide network[6].

FIGURE. 1. *Youth Guarantee main actors*



source: TESE

2. Methodology

This paper is drawn on data collected within the scope of the research-action project Make the Future… Today![7] (January 2017-June 2018) as well as on the follow up research (April 2019-October 2019), still in progress. Several techniques were employed during the activities of diagnosis, evaluation and monitoring of the YG Plan: analysis of the YG database; documentary analysis of YG reports; participant observation records from nine workshops with Local YG Network Partners. More recently, a follow up survey was applied to the Local Network partners (341 valid responses), in order to collect data that allowed a deeper understanding of the network constraints and potentialities.

[6] Other mismatches in the YG implementation, namely between the design and development of YG public policy and the young people and expectations (Vieira et al., 2018) and in other dimensions concerning the partners integration in the local network (Vieira, et al., in press) - operational and relational issues – have already been previously discussed.

[7] Project 'Make the Future…Today! Accelerate Youth Guarantee implementation in Portugal, increasing the number of young NEET registered in the system and the partnership's efficiency'. Funding: EaSI-European Commission (VS/2016/0373)

3. A network that doesn't work? Organizational constraints

While trying to understand the modest results of the YG implementation plan, analysis of the discussions held during the workshops with partners as well as the analysis of the network results in terms of registration and guidance of young people uncovered a set of constraints that contributed to understand the resistance in participating more actively in the YG program, explaining, in part, the low levels of participation in the network dynamics, which would allow fulfilling its goal of identifying and guiding young people in NEET condition.

The first constraint refers to the size of the network and the number of participants that compose it.

Often, public policies adopt a logic of resource maximization, assuming that its efficiency depends directly on the number of actors involved (Provan, Kenis, 2007). In the case of this network, however, despite the significant mobilization of institutions from the public sector and solidarity economy that work with young people (1497 local partners in April 2019), some key actors, like the formal schooling system, are almost missing from the daily life operational network.

Moreover, data showed that only ⅓ of the partners involved in YG were active, that is, they had already registered in the YG at least one young individual in NEET condition during the first three years of program implementation (2014-2016). From that third, many had made a small number of registrations and/or did not register frequently. Despite the recovery in the latest database update - about half of the local network partners - the proportion of active partners remains modest given the objectives of the YG implementation strategy. Additionally, only 16% of the partners have logged in to the YG platform in the last 12 months.

A second organizational constraint revealed by the analysis is related to the contrasting legal and statutory differences of the partner institutions, (Hall, Metcalfe, & Irving, 2015). This fact raises questions regarding the configuration, resources and governance conditions in which each one operates (Araújo & Rodrigues, 2016), but also to the fact that, according to their genesis (public or private), the problems, limitations and constraints may be different (Thomann et al., 2016; Tosun et al., 2016).

Indeed, results from the survey applied to local partners made possible to identify that one of the major difficulties professionals experience in the YG operationalization is related to networking and interaction with other partner institutions – namely, the national public employment services and YG nuclear partners - making clear that the network did not result in significant horizontal cooperative relations. Furthermore, there are sparse interactions with the leading institutions of the network.

Some of these difficulties are related to internal communication either between the several local partners or between public services, highlighting the constraints related with the network dimension and its characteristics as it is composed by several institutions which are different in its genesis (public and private), organizational structure, purposes and goals.

Due to these different characteristics, partners also show different levels of involvement, commitment and institutional obligations to the YG coordinator, as some of the institutions belonging to the network are actually departments of the national public employment service.

Therefore, these set of factors result in different power relations established (either horizontally or vertically) between partners, which create entropy to the daily work of the professionals that put into practice the goals of the policy

program. In fact, when asked about the program's contributions to the institution where they work and to their daily professional practice, most of the professionals that responded to the online survey revealed that they don't consider the YG program and platform as an added value for their professional practice, stressing as critical issues the isolated work by institutions and the inexistence of networking. Even among professionals who value the integration of the program in the institution where they work and in their daily professional practice, they assess more positively the possible benefits for young people, namely in the offer of measures in the area of employment and education/training, than the benefits for the institution itself or for networking.

Finally, despite the existence of public institutions in the network, the local strategy of the YG implementation is largely dependent on the set of partners from the solidarity economy, thus from private or cooperative matrix, whose operation depends on sources of financing, some limited and temporary, which limits the scope and effectiveness of their intervention.

The dependence on external funding, often restricted to a limited period of time and associated with a project, causes a high turnover of human resources in these institutions. It is known that social work, especially in the period of crisis, has been a sector particularly penalized by precariousness, uncertainty and professional vulnerability, based on the use of contractual short-term relationships (Standing, 2011).

Analysis showed that many professionals were working at the institution for less than 5 years and that the proportion of workers without a formal working relationship (contract) with the institution is also significant, working as individual outsourcing. This means, for example, that a large number of those professionals participating in the observed workshops did not even have access to the credentials that allowed them to register young people in the YG platform, as they were still associated with the professional who preceded them in the function.

Along with the other organizational constraints, the transience and precariousness of the professionals responsible for the local implementation of the YG thus appears to be critical factors conditioning the effectiveness and continuity of the identifying and guidance procedures of the young people in NEET condition and, by this way, constitute an obstacle to the implementation of the policy.

Conclusions

This paper reflects upon the Youth Guarantee program in Portugal, as an attempt to put in place a shared governance.

The design of the implementation of a YG in Portugal, engaging a logic of proximity and integrating a multi-sectoral and multi-level reticular approach, made of a nationwide network of partners, seemed to be a success factor. Moreover, it presented an innovative conception of education as an important part of the local network of partners dealing with young NEETs includes professionals whose skills (other than teaching skills) are considered as important contributions to guide young people ‘out of the system’ and help them to define their own personal projects.

However, our research identified some obstacles and organisational tensions in YG program implementation that undermine the desired shared governance. Three critical factors were explored: one has to do with the size of the network and the number and the efficiency of participants that compose it; the second organizational constraint revealed by the analysis is related to the contrasting legal and statutory differences of the partner institutions; the third one

derives from the transience and precariousness of the professionals responsible for the local implementation of the YG.

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The misery and splendour of the reputational evaluation. Teacher credibility between reputational evaluation and functional illiteracy of citizens.

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Keywords: *Teaching effectiveness, Functional illiteracy, Reputational evaluation, Accountability, Bias*

Introduction

To assure a quality and fair educational service, the Italian school system established a national evaluation system that involves all its actors (Law no.10/2011; Italian Republic Presidential Decree no. 80/2013). Afterwards, a *bonus* was introduced (a financial reward) for the best teachers (Law no. 107/2015). So, to evaluate their efficacy, the school committees tend to use also instruments expected in the models of the reputational evaluation such as questionnaires of evaluation of the perceived quality; they are administered to parents and students. Studies already reveal limits like bias. To these, the weakness of the functional comprehension of school-age and adult citizens, documented by the most recent national and international researches should be added as a critical issue.

We do not want to deny the strength of the concept of reputation and reputational evaluation: in fact, its ethical impact is known in the realities of the civil economy in which it represents an asset capable of generating value.

However, different and further issues must be considered in the educational field. According to the famous ranking of Hattie, the teacher credibility is one of the most impactful factor on learning outcomes even overcoming the student motivation; a broad reflection is therefore urgent about the use of DIY tools that are likely to have negative effects on that learning they want to improve. As a matter of fact, such tools can undermine teacher credibility, without actually providing reliable feedback about teacher efficacy.

The point is that the adoption of DIY tools seems to be a stopgap adopted for the sake of misunderstood sense of democratic participation for which the assumptions are lacking, such as, at least, the ability to analyse data, that could support an evidence based on criteria and/or standards.

1. The Italian school system evaluation.

Within the Italian National Evaluation System, the process of evaluation involves students, schools, school staff, and the school system.

At school level, teachers assure a daily, periodic, and final assessment of students. Students' outcomes are also evaluated through national standardized tests from INVALSI, the National institute for the evaluation of the education system.

Four phases make up the schools evaluation foreseen by the National evaluation system: self-evaluation; improvement actions with the support of INDIRE, the National institute of documentation, innovation and research in education, or through collaboration with universities, bodies, and/or professional and

cultural organizations selected by the schools; external evaluation from specific boards; public report of the results.

The INVALSI holds data on the learning outcomes at all territorial level (Regions, Provinces and Communes) and it can offer information on critical aspects and point out where to intervene to improve the whole school system in order to assure a quality and fair educational service according to the principles of the Italian Constitution.

1.1. Staff evaluation

Law 107/2015 known as 'The good school', has introduced an internal evaluation of teachers aimed at the recognition of teachers' merit and at the attribution of a financial award to teachers who received a positive evaluation. The school manager evaluates teachers according to criteria established by the Committee for the evaluation of teachers, taking into consideration the quality of teaching and the teacher's contribution to the improvement of the school, as well as students' achievements; the results obtained by the teacher or by the team of teachers in improving students' competencies and didactic and methodological innovation, as well as the involvement in the educational didactic, research and dissemination of good practices; the responsibilities taken for the coordination of the organization and didactic of the school and in the staff training. Every year the Ministry of education, by means of the Regional School Offices, allocates to schools, a sum taken from an ad hoc fund created at the Ministry of education. After three years from the introduction of the evaluation of teachers, Regional School Offices will send to the Ministry of education a report on the evaluation criteria and tools adopted by schools and their application for teachers' merit recognition.

2. Teacher evaluation: tools.

An overall national report is not available yet. Nevertheless, it is clear that reputational evaluation tools (such as questionnaires of evaluation of the perceived quality) are very widely used; they are administered to parents and students but tend to show lack of consistency and coherence in their timing, sequencing, scope, and methodologies. Studies also reveal a deep difference between a questionnaire, which is any written set of questions, and a survey, a broader term that describes content, method, and analysis: in fact, a survey also includes the process of collecting, aggregating, and analysing the responses from those questions. Methodology, data needs, and output objectives should be clearly specified. Not to mention the construction of the questions.

In short words, are schools aware of this and are they able to perform these operations with appropriate scientific method and rigour?

In addition, studies already reveal limits such as bias in questionnaires. Furthermore, the weakness of the functional comprehension of school-age and adult citizens, documented by the most recent national and international should be added as a critical issue as well as the deep and worldwide crisis of trust (mostly in the far-more-skeptical mass population than in the more trusting informed public), as confirmed by the *Edelman Trust Barometr* (Edelman, 2019). Unlike reputation, which is based on the historical behaviour of an organization, trust is a predictor of whether stakeholders will find you credible in the future, will embrace new innovations you introduce and will enthusiastically support or defend you. For these reasons, trust is a valuable asset for all institutions, and ongoing trust-building activities should be one of the most important strategic priorities for every organization. Therefore, it is hardly necessary to emphasize

that the question of teacher credibility is a crucial factor for the effectiveness of teaching and essentially for its main objective, namely learning outcomes; and every factor that weakens it (though without intention) must be carefully considered and possibly adequately prevented.

2.1. Misperception and bias

These assumptions are strictly related to the notions of misperception and bias. The notion of misperception refers to factual beliefs that are false or contradict the best available evidence in the public domain. These beliefs may originate internally (as a result of cognitive or psychological biases or mistaken inferences) or from external sources (media coverage). Misperception of the surrounding world has consequences on evaluations and subsequent decisions, because if perceptions are distorted, then evaluations will be groundless, and decisions might be inadequate or counterproductive. People's opinion can be distorted on a wide array of issues and not necessarily because of ignorance, or poor education (Flynn et al., 2017).

Misperceptions hinder two main democratic attitudes: aggregation and heuristics. The first focuses on the aggregation of individual level preferences into collective public opinion. In this context, heuristics is used when a person recognizes their lack of knowledge, but misperception can lead to wrong self-perception of being well-informed. Aggregation is used to balance random errors in individual level preferences, but in presence of systematic misperceptions, aggregation will magnify individual misinformation to public level. The latter is defined as the common judgmental shortcuts that people use to draw complicated interference from simple environmental clues. Both of them can produce negative consequence for public contexts. In fact, people tend to seek out information that reinforces their preferences (confirmation bias), counter-argue information that contradicts their preferences (disconfirmation bias), and consider pro-attitudinal information as more convincing than counter-attitudinal information (prior attitude effect) (Fiore et al., 2019).

Bobby Duffy, expert in social research, Professor of Public Policy and Director of the *Policy Institute, King's College London* is the author of *The Perils of Perception – Why We're Wrong About Nearly Everything* (Duffy, 2018), informed by the latest studies on misperceptions run since 2012 across the world from IPSOS. The analysis includes the full results from all the work undertaken, across 40 countries with one hundred and fifty thousand interviews. It examines why people around the world are so wrong about basic facts about their population. And if the Swedish are the most accurate about many aspects of their society, people in Italy and the United States are most wrong.

It's not just about knowing facts, Duffy says, but about how we think that causes us to misperceive the world. There is a complex plot of psychological reasons that make us overestimate some things and underestimate others. We all use heuristics instinctive and subconscious mental shortcuts. We are biased towards ourselves and people like us. On the other hand, a lot of our prejudices are rooted in misperceptions. We can go badly wrong when policies are enacted based on perceived problems rather than real ones. Our misperceptions can lead us to ignore or deny progress, and then we risk throwing it away. We need to be more aware of our misperceptions and open to correction by cultivating skepticism, being aware, teaching critical thinking in schools, and reading outside our own little word.

2.2. Functional illiteracy

But the vulnerability of critical thinking can be also joint with and increased by functional illiteracy. «Literacy is defined as the ability to understand, evaluate,

use, and engage with written texts to participate in society, achieve one's goals, and develop one's knowledge and potential». (OECD, 2013: 59). «Functional illiteracy is the incapability to understand complex texts despite adequate schooling, age, language skills, elementary reading skills, and IQ. These inabilities must also not be fully explained by sensory, domain-general cognitive, neurological or psychiatric deficits» (Vágvölgyi et al., 2016).

On May 22nd, 2018, the European Council launched the Recommendation on key competencies for lifelong learning, replacing the first competence 'communication in the mother tongue', with 'functional alphabetical competence', emphasizing the importance of the functional dimension in communication. This is opportune, if we consider the particular weakness regarding Italian citizens, according to international surveys, PIIAC for example, and national ones such as the ISFOL observatory as published in the article «I low skilled in Italy» (Di Francesco *et al*., 2017). Among the most interesting results, we observe the increase in the percentage of low skilled with increasing age, passing from 20 percent of the 16-24 age group to over 41 percent of the over 55. This is due, according to the researchers, to the absence of compulsory schooling for those born before 1953, but also to the greater presence of returning illiteracy among the more adult groups. As for this issue, the Report about Knowledge of The Italian National Institute of Statistics can also be remembered (ISTAT, 2018).

3. Teacher credibility, teacher efficacy and learning outcomes.

Therefore, it must be stated that a naive use of questionnaires on perceived quality implies some problems and that good intentions can backfire because of lack of competence in survey implementation, in defining data needs, in data processing, in data analysis and furthermore because of oversurveying; but also because of interferences like bias, misconceptions, and functional illiteracy. All these, even in the absence of objective negative evidence, can weaken the teacher credibility and his four key factors: trust, competence, dynamism and immediacy.

To find out what better works in education, John Hattie (Hattie, 2009) in his meta-analysis ranked 138 influences that are related to learning outcomes according to their effect size. This list was updated till 2018 when 252 influences were considered. Originally, Hattie studied six areas that contribute to learning: the student, the home, the school, the curricula, the teacher, and teaching and learning approaches. He found that the key to making a difference was making teaching and learning visible. According to Hattie's research, teacher credibility is vital to learning outcomes; it is a factor more relevant than intrinsic student motivation to improve his learning and students are very perceptive about knowing which teachers can make a difference. Hattie says that, if a teacher is not perceived as credible, the students just turn off.

Source of credibility is the perception of the receiver that the communicator is able and willing to provide informations that are correct and true. So, credibility is not an intrinsic characteristic of the source, but a relationship, a quality perceived by a receiver in a sender, and it may change over time. However, recognizing some credibility to the interlocutor constitutes, as Gadamer (Gadamer, 1973) observed, the supporting agreement on which every communication relationship and, ultimately, every human relationship is based. Also, the question of the credibility of the role and credibility in the role should not be underestimated, but it should be considered in the main frame of the teacher efficacy.

Teacher efficacy has been empirically identified as a significant indicator in enhancing student achievement. Therefore, it must be considered when any study is addressing the effect of qualified teachers on student achievement.

Bandura's self-efficacy theory sheds light on the role of internal cognition, performance, and social environment. So, if the contest is not supportive, the teacher efficacy can be lost, and with it his chance to increase the student's learning (Bandura, 1995).

Conclusions

Perhaps evidence emerges that it is not prudent to entrust such delicate and crucial processes to procedures and instruments not yet validated. This is not just for the survival of the school system, but more to guarantee learning outcomes.

As a starting point, the school system should improve the mindfulness of leaders about tools, and purposes of evaluation; then, if trust and credibility are both rooted in a relationship, it should build strong relationships based on the principle of loyalty/sincere cooperation between all stakeholders; stakeholders should be gradually and systematically informed and trained about tools and purposes of evaluation; common protocols/models of surveys for reputational evaluation could be provided by the central school authorities; cross processes improving functional literacy should be widely supported.

Although it may sound like a truism, it is important to recall that in rapidly evolving environments any emotional manipulation and distorted perceptions is unlikely to be really fended off unless it is taken on with concerted efforts to raise awareness, education, empowerment and social commitment. This is ultimately of paramount importance to protect our open democratic societies and in them the educational agencies namely the schools.

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(Re)Discovering Non-Formal Education. The Contribution of the European Youth Programmes

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Keywords: *Non-formal education, Lifelong Learning, Mobility, Erasmus+/Youth in Action, Youth work*

Introduction

In the contemporary scenario, the concept of education has been progressively understood for its potential of emancipation, both personal and social. In this respect, contemporary sociology has increasingly paid specific attention to the interaction between the formal, informal and non-formal dimensions of educational processes.

It is worth noting how in sociology as well as the social sciences, there is a large amount of literature that clearly identifies the main features of the field of formal education, while there is still a controversial debate on the features of non-formal education. The peculiarities of the latter, over the last three decades, seem to have found a specific declination in European youth policies, giving rise to a sort of '(re)discovery' and substantiating, at the level of practices, most of the activities developed within the framework of the European Youth Programmes. The paper intends to reflect on the '(re)discovery' of non-formal education in a scenario in which youth policies increasingly overlap with educational ones, highlighting, on the one hand, the challenges and contradictions which are accompanying the adoption of the European perspective, and outlining, on the other, the potentialities that non-formal education activities gain in the '(re)definition' of young people's educational processes.

1. The educational problem

The analysis of educational processes is a crucial issue for sociology. While already present in the analysis of the masters of sociological thought, the sociological interest toward education increased during the reconstruction which followed the Second World War, also in relation to the progressive expansion of the schooling process (Besozzi, 2017). In that period, characterized by the predominance of the functionalist paradigm, the debate and research focused mainly on formal education and the school agencies, assuming a 'linear' concept of the relationship between education and society (Barone, Schizzerotto, 2006).

Since the early Sixties, the interest in issues related to all the aspects concerning investment in education flourished. However, at the end of the decade, with the youth protest, a widespread criticism regarding scholastic institutions emerged, thus highlighting the growing 'discontinuity' between educational processes and society (Benadusi et al., 2004).

The recovery of the critical elements of discontinuity favored, in the following period, the emergence and, then, the consolidation of a new conception of educational processes, grounded on the multidimensionality of agencies and educational opportunities (Morin, Lazzari, 2001).

Following the transformation of this social scenario, there was the overcoming of the school-centric vision, and the emergence of what has been defined as 'educational polycentrism' (policentrismo formativo). The latter consists of the failure of not only the family and the school as key formative institutions but also the recognition of plural training paths, which affect the content, the form and the purposes of educational processes, while also revealing a high macrosocial and subjective flexibility, within a context characterized by the plurality of times, recipients, actors and training opportunities (Cesareo, 1976; Giovannini, 1997; Colombo, 2010). A deverticalized image of the educational system thus emerges, characterized, on the one hand, by the difficulty of identifying a normative center and, on the other, by the valorization of the individual abilities.

Therefore, it seems that education is progressively 'changing its skin', with it being transformed and expanded in connection to renewed social needs.

In this context, it is worth noting how, while some learning processes still take place within the formal dimension, many others increasingly occur in informal and non-formal processes: therefore «learning to learn» (EC, 2001), «learning to exist» (Crespi, 1994), «knowing how to do and knowing how to use» (Scanagatta, 2006) become some of the key elements of the new way of interpreting the 'educational problem'.

2. Non-formal education within the 'learning continuum'

At the turn of the new millennium, in a context full of new contents, times, recipients, actors and training opportunities, several sociologists have reflected on the features of educational processes in what – among other possible definitions – can be indicated here as «second modernity» (Giddens, 1994).
Within the framework of this consideration, it is worth taking into account the analytical framework developed by Lynne A. Chisholm (2007; 2008). To set the approach, the author takes up the reflection of Karl Mannheim, based on the concept of an 'Educating Society'. From this reference, and assuming the debate that at that time was taking place in relation to 'Lifelong Learning' (Field, 2000; Tuijnman, Boström, 2002), Chisholm (2008) highlights the importance of giving shape to a general «(re)contextualization» of educational paths, characterized by the importance of the growing role recognized to dimensions such as self-direction, commitment, variety and transferability of learning, along what is defined as the 'Learning Continuum'. The latter is characterized by an articulated process, in which three dimensions can be recognised: formal, informal and non-formal ones. Following Chisholm's proposal, the formal dimension is «typically provided by a training institution, structured and leading to certification». The informal dimension is instead the «result of daily life activities related to work, family or leisure; is not structured and typically does not lead to certifications, it may be intentional but, in most cases, it is incidental». Finally, the non-formal dimension is «not provided by a training or education institution and typically does not lead to certification, it is structured and intentional» (Chishom, 2008: 143). Starting from this reflection, it is possible to consider the non-formal dimension of education as a link between the formal and informal dimension, while also retracing the itinerary that led to its '(re)discovery'.

It is important to remember that around the Seventies, a (first) debate on non-formal education took place. The first use of the term 'non-formal education' can be traced back to a 1967 report, which contained an introduction by Philip Coombs, who, a few years later, together with Manzoor Ahmed, played a central

role in this debate. The two authors proposed defining the non-formal dimension as: «Any organized, systematic, educational activity carried on outside the framework of the formal system to provide selected types of learning to particular subgroups in the population, adults as well as children» (Coombs Ahmed, 1974: 8).

At the beginning of the Eighties, Thomas J. La Belle (1982) proposed a further perspective. In his work, he reaffirmed the need for institutions to turn their attention towards non-formal education, since it allowed to respond to the challenges and social transformations of the time.

Although after these first attempts to 'de-fine' non-formal education there have been others (relevant) discussion, there is an undeniable absence of continuity in the reflections on the issue, which therefore seems to be characterized by a sort of discontinuity. However, through the elements presented in the above-mentioned analysis, it is possible to try to outline a first, and certainly partial, '(re)configuration' of the concept of 'non-formal education'. In a first approximation, it uses communication, interaction, dialogue, practice and experimentation, placing itself close to the concerns of real life, orienting itself towards creativity, discovery and responsibility (Chisholm, 2007). The non-formal approach is also directed towards inclusion, with the claim that even those with fewer opportunities or failures can find redemption. It seems clear, however, that an adequate integration, capable of including the overall vision of the three dimensions mentioned above, could offer the opportunity within which to integrate and complete the (continuous) poly-structured learning process advocated by Lynne A. Chisholm.

3. Non-formal education in European youth policy

How has the concept of non-formal education been '(re)configured' in the contemporary scenario? Along which channels practices, processes and policies dealing with it can it be '(re)connected' within the Learning Continuum?

It is worth mentioning some policy measures which have contributed to setting these issues within the European institutional dimension and seem to emerge as the main framework in which to insert what can be defined as the '(re)discovery' of non-formal education.

At the international level, the interventions aimed at enhancing non-formal education processes date back to the period between the Sixties and Seventies and, in a first phase, they focused on those living in poverty or social disadvantage (Coombs, Ahmed, 1973; La Belle, 1982; UNESCO, 1972).

The European experience marks a different path, with its roots in a series of historical experiences and links the concept of non-formal education to youth policies, overlapping them – often implicitly – with the educational ones. In the last three decades, the different European institutions have tried to promote measures and tools that could be useful in answering the social, cultural and educational needs emerging in the new context, assuming as a pivotal reference the concept of Lifelong Learning (Lauritzen, 2008; Devlin et al., 2017).

This process has found specific development in the concerted action between the European Commission and the Council of Europe. The two institutions called attention to the role and relevance of non-formal education in the broader framework of educational processes, thus contributing to '(re)giving' impetus to this still not very familiar word, which has increasingly become a central reference in the vocabulary of European institutions, and, in particular, of those working with (and for) youth.

It is here important to clarify how the debate that takes shape in Europe on these issues often overlaps, with different shifts in meaning, the concepts of 'education', 'learning' and 'training', with a particular fondness on the dimension of 'learning'. The European interventions seem to pay specific attention to the responsibility of the individual on his/her own learning process, proposing a (new) vision which seems shifting – almost silently – from 'education' to 'learning'. While the first is a complex process whose general activities are declined differently in time and space, assuming the collective dimension as reference for intervention strategies, the latter is a predominantly individual process, acting in relation to specific social expectations (Ribolzi, 2012).

To better understand this passage, it is worth mentioning two important documents on youth policies which, at the beginning of the new millennium, gave an indelible mark for future interventions within a European context which proposed itself as able to give «new impetus to young people» (EC, 2001). In 2000, with the *Memorandum on education and lifelong learning* (EC, 2000), the European Commission took as its reference the global strategy for implementing Lifelong Learning as a necessary prerequisite in a knowledge society. On this basis, the Commission adopted the concepts of «formal, informal and non-formal learning», of which literature had already defined its peculiar characteristics. Along a common guideline, in 2001 the *White Paper on Youth* was presented, with it quickly becoming a 'milestone' in the evolution of European youth policies. The *White Paper* dedicated a broad reflection to the question of «non-formal learning», defining its prerogatives and identifying the need to understand and recognize the competences acquired in a non-traditional way through the work of (and with) young people (EC, 2001). Furthermore, developing what is contained in the *White Paper*, in 2004 another document was published under the partnership between the European Commission and the Council of Europe: *Pathways towards validation and recognition of education, training and learning in the youth field*, which summarized the main results of a long reflection between operators and policy makers. In putting together, *education, training and learning*, the document described the essential characteristics of the youth field and defined paths towards the validation and recognition of non-formal learning.

It is, therefore, evident that the dimension of 'learning' as an individual and experiential process finds fertile ground in the European lexicon, 'dragging' along the non-formal dimension into the paradigm of Lifelong Learning. At this point, however, it presses to unravel a crucial and leading question in the discourse that is being outlined: what place does the dimension of 'education' – and, in particular, of 'non-formal education' – occupy in this complex framework characterized by the continuous overlapping of meaning?

4. '(Re)discovering' non-formal education through the European Youth Programmes

The aim of this last section is to show how the richness, variety, transferability and articulation of contemporary educational processes can find (possible) spaces of expression through the European Youth Programmes. The latter, through the tools and methodologies of the non-formal dimension and the activities promoted by associations operating in the third sector, in social promotion, environmental protection, or international solidarity, etc., contribute to putting young people at the center, while also activating educational practices in harmony with the dynamic and multifaceted dimension of non-formal education.

It is necessary to highlight how the European Commission, already since the 'Youth for Europe' Programme (started in 1989) had undertaken a path of continuous investment towards the non-formal dimension in the youth field. The subsequent Programmes outline an increasingly specific commitment: 'Youth' (2000-2006); 'Youth in Action' (2007-2013), up to the last generation that finds in 'Erasmus +/ Youth in Action' (2014-2020) a noteworthy container of all the most important European Programmes related to 'education, training and learning'.

The latter, through methodologies based on discussions, role-plays, simulations and activities that revolve around the non-formal dimension and peer education, aims to 'educate' young people to openness, multiculturalism and inclusion, through a creative, experiential and multidirectional model.

Thus, the idea emerges that the Programmes assumed at the European level during the last thirty years have decisively contributed to the '(re)discovery' of non-formal education, also thanks to the definition of a specific regulatory framework of reference.

'(Re)discovery' is used since, while keeping on the track depicted by the debate which took place since the Seventies, the European institutions are clearly contributing to the '(re)definition' of the non-formal dimension. Starting from a privileged attention towards the 'learning' dimension, it seems that – through the Programmes for youth – they are substantiating, expanding and, in the end, institutionalising a new way of dealing with the 'educational problem'.

Conclusions

It is possible to conclude by highlighting how the European dimension becomes a tool capable of contributing to the rediscovery of the role and relevance of non-formal education in the analysis of contemporary educational processes. However, it is also necessary to highlight how, in '(re)discovering', '(re)defining', '(re)knowing' experiences, opportunities, as well as spaces, contexts, forms, actors and occasions, European policies have, in some ways, reduced the complexity and articulation of a much wider, rich and multifaceted debate. There is now a scenario in which it is necessary to collect both the elements of continuity as well as those of differentiation: it is also important to identify and recognize not only the important aspects of innovation that have contributed to the '(re)discovery' of non-formal education, but also the 'reductions' of the adoption of this perspective. Therefore, the analysis that contemporary literature should conduct is to bring together these elements so as to reformulate a new interpretative key.

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Training and Education with Robots in Healthcare and Moral Issues

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Keywords: *Education, Healthcare, Simulation, Roboethics, Bioethics*

Introduction

Training is important in any profession: even medicine and nursing science students need to test the skills acquired in coursework. Health operator education today widely uses mannequins planned for standard training and such simulators are expected to enhance the quality of skills mostly where trainees rarely have the opportunity to deal with 'real' patients in educational facilities (Ishikawa et al., 2015).

The models' physical and anatomical features are increasingly human-like, favouring student identification with the clinical situation simulated and allowing them to exercise and train not only technical abilities, but also critical thinking, the ability to work in a team, empathy towards the patient and communication. However, the production of increasingly intelligent and interactive robots could make training even more useful for refining clinical skills learned in the classroom. Moreover, it could be easier for teachers to verify the student's level, in that the robot could be connected to a computer and give detailed information on its patient: for example, could the manoeuvre or test performed have damaged their organs? Was the exam conducted exercising the right pressure on the parts of the body involved? Also, according to didactic needs, the robots could be programmed to mimic people of different ages and different character and temperament: in this way, the student could also face up to situations and practice where the patient's compliance is absent. Interacting with robots, future health operators can learn to gauge their actions and then correct them in the face of negative reactions: once their robot starts to seem content and is no longer agitated or crying, then we have reached the adequate care level. Our reflection intends to present some of the main moral issues of these new scenarios. Robots promise to be a very effective didactic, training tool. But with the production of increasingly 'human', intelligent and interactive machines, will students continue to perceive of robots as 'simple' objects? Before the suffering they perceive on the face of the robot they practise on, could they have difficulty concluding their pre-clinical training? Could, that is, students empathise with them and treat them as human beings? Further, is it legitimate to do anything to robots, or does what is done to a machine still have important consequences for our moral 'character'?

Finally, the question is asked whether robots can acquire moral and legal relevance: that is, what features must a machine develop to become a 'person' (Sparrow, 2012)?

1. New digital and robotic technology at the patient's bed

New technology should not be perceived of as a threat: on the contrary, it is an important resource. For example, virtual reality is now used to treat various problems: from phobias to anxiety and other psychiatric disorders (Bouchard et

al., 2006). It has also been observed that immersion in virtual reality makes pain less felt: this is why it is also hypothesised to supply an alternative mechanism to manage labour for women desiring to have a not medicalized childbirth. Further, over the last decades, the use of robots in medicine has notably increased. For now, there are no robots able to act with complete autonomy in the operating theatre: but through the commands of a health operator, the robot's mechanical arms may perform elaborate, precise operations on the patient, even at a distance. Robots can also be used to encourage or help patients to carry out physical exercise, entertain them or stimulate them with games and questions, or remind them to take their medicine, monitor the state of their health and move. Moreover, in the field of assistance, robots may serve to supply patients with medicine and food and put the patients in connection with health operators. It is sufficient that the robots used have a screen and the doctor's or nurse's image and voice can be projected to the ill person's bed.

Finally, not least to foster therapeutic activity, robots can be used to allow disabled people to have a far more satisfying sex life or to treat dangerous sexual disturbances such as paedophilia or sadism. Today, the sex robots on the market are rather rough and technologically unsophisticated, but tomorrow we could find far more refined, realistic models on sale, increasingly 'human' and able to react to any vocal, visual or tactile stimulus.

Some of these robots are not very different from machines used in industry, while others are able to move, exchange a few words, react to people's behaviour and learn from previous experience and interaction. And while several robots reflect the classic image of the autonomous machine, others resemble an animal or look like a human being. It is not possible to offer a complete picture of the range of robots currently on the market and used in medicine for therapeutic or assistance purposes: their number rises more and more each day, and due to technological and scientific progress, increasingly original, interactive versions are planned. It is mainly the patients who derive advantages from the introduction of robots, in that they can be assisted by machines that are not subject to fatigue or stress and are able to be operative 24 hours a day nonstop. Further, robots may not only monitor their health condition more precisely than a health operator or human (for example, robots may be programmed to note a significant change in the behaviour, habits or voice of the person they follow), but also compensate for or limit the impact of certain physical disabilities, in that they can work for the patient like a both physical and cognitive prosthesis (Borenstein, Pearson, 2010).

Robots could also become a significant resource for not only the sick and elderly, but also anyone who carries out care and assistance work every day. Indeed, they could be used for work that is more repetitive (taking medicine to the patient's bed, distributing breakfast and other meals) and tiring (lifting a patient from the bed, helping him walk or washing and drying him) or for more boring jobs that not require special medical skills. In this way, caregiving practise would have a less negative impact on the caregivers' emotional, personal and social dispositions (care work can cause depression and motivational apathy, and even lead to total nervous collapse) and people taking care could have more time and energy to build quality relations with the patient.

We do not know if the costs for the health services guaranteed by robots will be more accessible, but introducing carebots into the field of care would permit satisfying the needs of the health staff and assistant partner, which is bound to grow more and more because of reduction in the birth rate and lengthening of average life.

2. Use of new technologies for training in medicine

Immersion into virtual reality with a visor and a simple application does allow a health operator student to deal with any patient through simulation (Bouchard et al., 2006). However, robots too could contribute to training doctors and nurses and give them the opportunity to practice their skills before working in a clinic and seeing a real patient. Health operator courses today widely use dummies planned for standard training: but the first robotic models are slowly starting to appear on the scene (Huang et al. 2017; Maidhof et al., 2012; Moodley, Gopalan, 2014).

Robots used as didactic tools allow students to exercise and practise the skills and knowledge acquired in class more profitably, in that they present a more human look and react what is done to them. Based on the robot's reaction, the student can almost immediately understand the appropriateness of the manoeuvres and interventions he is carrying out and possibly correct them until he gets the desired response from the robot. For example, in response to inappropriate behaviour, the robot may cry and complain: but if the student rightly carries out his practice, the robot shows it is content. At the same time, the teachers can far more easily verify the student's actions, in that they can receive on their PC detailed information on the work performed: for example, could the manoeuvre have damaged organs? Was the exam conducted exercising the right pressure on the parts of the body involved?

3. Moral questions on using robots to train doctors and nurses

As robots are increasingly spread in society, it may tomorrow appear normal to interact with a machine and share part of our daily life with it. Relating to a robot could become a constant, not only professionally, but also when we move, are at home or get sick. Of course, if these machines were aware entities and had feelings, sentiments and emotions, we would have plenty of cause to treat them like 'people'. But are we sure that it is correct to do anything to a machine that is not self-aware and cannot feel even the simplest emotion? A machine cannot feel better or worse: that is, if we kick it, stop it working and even destroy it, we cannot do it any harm. But can we not draw conclusions about people's characters from the way they treat and relate to an increasingly intelligent, interactive machine? For example, could a virtuous person ever wish to 'rape' a doll? And by dint of 'acting out' immoral behaviour, is one's character not corrupted? So that no one may play and simulate sadistic behaviour, 'My Real Baby' automatically switches off in those situations in which a child would suffer: the problem is that today there are robots programmed to refuse any sexual advance and designed for people wishing to have the experience of sexual violence.

And for the moment, only on television, at the cinema and in literature may a human being happen to feel sincere affection or love for a robot. We want to feel loved and it is of course important for us that those who love us have sincere interest and are not just doing so for convenience: the robot's affection may seem to us precisely that disinterested love that we seek. We can only try to imagine what the consequences could be: for example, by dint of loving a machine programmed to agree with us always, could we over time lose the ability to relate to other people? Further, could it become harder to account for our mistakes and our partiality? But a robot that is only our mirror could also end up boring us: the relationship would be monotonous; any of its gestures or opinions would be predictable. And there would be no sense in having a super-intelligent

robot by one's side, but programming it to please us and always assume our perspective. Indeed, an intelligent robot could process an impressive quantity of information and swiftly establish what the most rational choice is. But in this case, could the robot truly become the other in a relationship? Or can we only have an authentic relationship if the other is not only unlike ourselves (for example, in opinions, tastes and *weltanschauung*), but is also not programmed in its choices (by third parties) and has free will? And is it relevant that the robot cannot at the moment be sentient? It is not easy to answer these questions, but they are questions we can no longer rule out, because robots are advancing and will be more and more part of our life (Wennerscheid, 2019).

Robots currently used in medicine as didactic and / or exercise tools do not yet have the ability to interact like a human being. But what will happen in the future? The more human the robots seem, not only physically but also psychologically, the more difficult it may be for students to treat these machines simply as objects and to practise their skills on them as they do today on industrial mannequins. Even though these machines are not sentient and cannot suffer, students may perceive of them as human beings endowed with identity and awareness. This means they may be afraid to practise on them interventions or manoeuvres they have never practised before and they do not feel secure about. So that students may not empathise with androids designed for exercise, robots that do not look human in the least could be used. But like this, the students would have no way to prepare themselves adequately to face the scenarios and difficulties they will meet in practice. Further, the Uncanny Valley problems also apply to robots to be used in medicine as a teaching and training tool. That is, the more similar the robots become to human beings, the more we perceive them as something repugnant, their presence seeming unpleasant. So, one who plans robots for medical training should consider that robots' greater likeness is not always a reward.

Of course, if one day robots had moral, legal relevance and became 'persons', it would no longer be possible to use them as exercise objects. If the robots produced were self-aware and able to feel pleasure and pain, it would be difficult to deny them the rights that human beings now have. But even robots that are not self-aware but can still interact with us could finally acquire the same moral relevance as us. After all, not only are we able to recognise value to even virtual entities like Tamagotchi, but we also build relations with machines (we get angry at a printer that does not work; we call our car ourselves), so one can imagine what might happen with intelligent robots. If the robot is able to produce the same «levels of experience, company, satisfaction, emotional comfort as a human being» (Nyholm, Frank 2017: 223) we may not resist the temptation to treat it like a human being. What is described in films like Her or Ex Machina could occur: firstly, we approach robots with more suspicion than interest, but then we build significant, increasingly intimate relations with them. At that point it would probably be easy to give in to their appeal and recognise them as people (Danaher 2019; Gunkel 2018).

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Critical Thinking and Capability Approach to Face a Digital Oriented Future

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Keywords: *Critical thinking, Capability approach, Digital natives*

Introduction

The theme of the negative effects of the digital environments' massive use, especially in the developmental age, is one of the great issues that currently invests the socio-pedagogical debate. The studies describing the so-called «digital natives» (Prensky, 2001) speak about a generation 'always on', for which digital tools are no longer just media, but real environments and social spaces (Rivoltella, Ferrari, 2010) where the boundary between real and virtual becomes more and more feeble.

1. Young generation in digital environment. A possible 'consumption' of critical thinking?

The ubiquitous connectivity as the new normal (European Commission, 2017) has made digital environments places to live and inhabit. Each user can potentially take part in their construction. Beside new possibilities, however, the network, if not managed in a critical and careful manner, can also contribute to the arise of attitudes that negatively influence daily activities. The Italian monitoring centre for adolescent, after a survey that involved over eight thousand Italian young, describing some of these potentially risky habits linked to the extended use of digital devices, speaks about: «Vamping» (when someone uses to spend many night hours on social media). «Fear of missing out» (the tendency to keep the phone 'at fingertips' all day, including night, to read notifications and messages at any time and to not be 'cut off'). «Nomophobia» (from 'no mobile phone' to indicate the phobia linked to the possibility of being without a phone or an internet access) (Osservatorio Nazionale Adolescenza, 2017: 2).

In the 'continuous partial attention' age, the thinking styles of the Net Generation young, their study habits and their social relationships are significantly different and they are matter of increasing concern both in Italian and international researches (Ranieri, 2007) to such an extent that, as stated by the OECD: «It is often claimed that the current cohorts of students are so adept at digital technologies that their lifestyles are […] determined by the use they make of these technologies in areas such as personal communication, entertainment, and social interaction» (Pedró, 2009: 4).

The overexposure to digital devices does not ensure an attention entirely devoted to a single activity (Rivoltella, 2008), therefore digital natives are often labelled also as 'multitasking' or 'task-switching', as they move quickly from an action, a topic or a tool to another, compromising, in addition to the ability to focus on something, even performance, learning and thinking (Kirschner, De Bruyckere, 2017). In this way they develop habits that are 'enemies' of in-depth analysis and reflection. The latter, on the other hand, seem to be fundamental in facing media contents that require critical consumers capable of directing their own reading and of making appropriate judgments on the relevance of a

page or on the quality of an information (MIUR, 2016). Critical consumers have to be «fully aware that behind technology-related extraordinary potential for human beings there are deep social, cultural and ethical implications» (MIUR, 2018: 5).

1.1. Post-truth in post-democracy

Talking about digital environments, we can find increasing references to the need to be able to recognize the reliability of a source and thus be able to distinguish true news from post-truth and fake news which, linked to the phenomenon of the echo chambers, have emerged as an issue of concern in the political discourse of democratic countries (Garimella et. al., 2018). A topic widespread so much that, in 2016, Oxford Dictionaries – especially after Brexit vote and the US presidential election – has declared 'post-truth' as international word of the year, defining it as an adjective relating to circumstances in which objective facts are less influential in shaping public opinion than emotional appeals (Cosentino, 2017).

In the exercise of one's own citizenship, therefore, the ability to assess the truthfulness of an information and a source becomes essential. Building consensus – an action that passes through the pages of social networks and risks to be trapped in contemporary virtual caves, in which users are surrounded by people and news sources who express only opinions they agree with – requires careful, critical and aware citizens, able to recognize facts from fiction. Indeed, the typical network communication, by the many to the many, is not always synonymous with discussion among different points of view, but above all it returns a community of similar, in which propaganda is nourished and democracy is reduced to a conflict among opinions said without any check of the contents they express (Sunstein, 2017).

2. Two maps for the *infosphere*: critical thinking and capability approach

The educational contexts that, more and more, have to face the challenge of complexity should have, among their objectives, the education of «well integrated and free persons, independent in their thinking, who are interested in improving and enhancing the world, eager to take part in building a life more meaningful and worthwhile for all» (Chomsky, 2008: 63).

In the following paragraphs, we propose two 'maps' which seem to be useful for a meaningful orientation in the *infosphere* of the fourth industrial revolution (Floridi, 2017) and for the development of critical, responsible and aware students-citizens. These are critical thinking (CT), a fundamental skill for moving along the digital transformation pathways, and the theoretical framework of the capability approach (CA) through which we intend to restore a central position to the human being, to his (critical and free) thinking and to his potentialities.

2.1. Critical thinking. That is: free and self-sufficient thinkers

The natural process of thinking, if not educated or trained, can be biased, distorted, partial, misinformed (Scriven, Paul, 2004). The complex situations of the fourth industrial revolution require 'good thinkers', critical thinkers able to value thinking within opposing viewpoints. Thanks to CT, they do not assume that their perspective is the most reasonable one. They are willing to engage in dialog to understand other perspectives. They do not fear ideas and beliefs they do not understand or have never considered. They are ready to abandon beliefs

they have passionately held when those beliefs are shown to be false or misleading (Paul, Elder, 2016).

As early as 1995, UNESCO, in the 'Declaration of Principles on Tolerance', included CT among the results of a necessary tolerance education, essential, with independent judgement and ethical reasoning, to counter influences that lead to fear and exclusion of others. A principle, the tolerance one, cherished to UNESCO as «necessity for peace and for the economic and social advancement of all peoples». Twenty years later and in conjunction with the publication of the 2030 Agenda for Sustainable Development, the United Nations Educational, Scientific and Cultural Organization reiterated the importance of CT in the 'Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4'. Indeed, UNESCO gives to this skill a fundamental role in the development of a knowledge capable not only of adapting to the rapid evolution of the world of work, but also able to create social, cultural, ecological and economic development. CT, although it is difficult to trace a univocal and shared definition of it, can be considered as the exercise of doubt and research, formulation of questions and hypotheses, problem solving and creativity's exercise. As argued by Ennis, American analytical philosopher, one of the most influential CT academic, this 'higher-order thinking skill' is reflective and reasonable thinking, focused on deciding what to believe, but it is also a practical activity to determine what to do (Ennis, 1985).

With the possibility of reducing errors and distortions, CT permits to move towards flexible and resilient attitudes that allow us to face and manage changes. Therefore, it can be also understood as the act of taking care of one's mind and so of one's life, with a careful and systematic 'monitoring' of their own thoughts, thanks to self-examination and self-discipline, up to reach an open, lay, plural and free thinking, able to cope with the conformism or with populism and authoritarianism drifts. The research begun by the critical thinker leads to a de-construction and a subsequent re-construction of given facts and beliefs, not only with cognitive accuracy, but also with autonomy, self-determination and independence from possible forms of control. Thanks to CT, a person become self-sufficient and «a self-sufficient person is a liberated person, free from the unwarranted and undesirable control of unjustified beliefs» (Siegel, 1988: 58).

2.2. Capability approach. That is: free and self-sufficient persons

«The real wealth of the nation is its people and the purpose of development is to create an enabling environment for people to enjoy long, healthy and creative lives. This simple but powerful truth is too often forgotten in the pursuit of material and financial wealth». With these words, Martha Nussbaum, in a famous speech of 2010, entitled *Creating Capabilities: The Human Development Approach*, held at the Law School of the University of Chicago, introduces, quoting Mahbub ul Haq, Pakistani economist, founder of the Human Development Report, 'her' CA. An approach starting from a question that seems simple, but that, instead, turns out to be demanding: 'what are people actually able to do and to be in shaping their own lives?' (Nussbaum, 2012). A challenging query because it focuses on the human being with his potentialities and his needs. A question that can be considered even more important at a time when it is essential to recover *humanitas* with its values of rationality, dialogical relationality, ethical reciprocity, critical discussion (Alessandrini, 2019a, 2019b).

Answering this question, the CA also replies to the life's complexities and the human beings' aspirations (Nussbaum, 2012), understanding the capabilities as the most appropriate space in which evaluating the quality of life of each person and combining personal skills with political, social and economic environment (Sen, 2001; Nussbaum, 2012; Alessandrini, 2014). Even the digital environment,

which overlaps – if not, sometimes, replaces – the real one, must therefore be the place where every woman and every man can express their potentialities and exercise their creativity and entrepreneurship. With the fourth industrial revolution we witness the creation of new 'ecosystems' (Alessandrini, 2017) in which man-machine relationship changes: digital tools exceed their role of *medium* and human beings their one of being a purpose. The CA, instead, recovers the idea that each person is a goal, wondering not so much what is the whole or the average well-being, but what are the opportunities available for each person (Nussbaum, 2012). Therefore, the assignment of every society is the human development, understood as the capacity of each person to be an autonomous subject, free to plan his life and to realize it based on his own ideas and choices (Baldacci, 2015). Not only rights, then, but capabilities that embrace a broader notion since they do not only concern substantial opportunities, but they also include procedural issues which investigate whether a person is able to engage in a particular process (Nussbaum, 2012).

Conclusion

The second machine age, with its challenges and uncertainties, can be an opportunity for human beings and their intelligence (Brynjolfsson and McAfee, 2015), but it must be managed with competence and awareness. It is necessary that, above all young generations, be aware of having to apply their knowledge in unknown and evolving circumstances. CT, as also pointed out by the OECD, can help «to foresee what may be needed in the future or how actions taken today might have consequences for the future» (OECD, 2018: 6). This is why it is important that 'future-ready' students promote agency in their own education and throughout life. In fact, agency implies a sense of responsibility to participate in the world and, in so doing, to influence people, events and circumstances for the better (*ivi*: 4).

Pedagogy, which must know how to live its time and co-inhabit social, economic and cultural contexts and practices that characterize it, has an undeniable 'political responsibility' focused on the «conditions that generate educational processes centred on the integral formation of person, the critical judgment, the open-mindedness, the dignity and the respect for democratic rights» (Alessandrini, 2019b: 24-25). Education, which also plays a leading role in the CA (Nussbaum, 2012), must therefore represent an investment factor and, at the same time, employ a propulsive thrust allowing the formation of students-citizens of a «healthy democracy» (Nussbaum, 2011: 61). To do that, as assumed by the American philosopher in an interesting list of actions, it becomes necessary, among other things, «to strongly foster critical thinking, ability and courage required to make a dissenting voice heard» (Nussbaum, 2011: 61). The strengthening of CT and capabilities can also be interpreted in light of citizenship's exercise and in light of education for collective and individual responsibility, to face the future and make one's talent and potential bloom (Alessandrini, 2014; 2019) in environments (both scholastic and not) that are always more complex, unpredictable and constantly evolving.

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Young Italians between Cyberbullying and Hate Speech. A Focus on Digital Communication Practices

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Keywords: *Hate speech, Social media, Digital literacy, Incivility, Bullying*

1. When hate meets the web

In the climate of generalized hatred that we experience daily, by watching the news or talk shows, reading online newspapers, or scrolling our Facebook timelines, it is essential to question educational programs' actual ability to oppose these shifts. Most importantly, we must start rethinking them, especially given the negative consequences of people's exposure to hostility, rudeness or incivility, both in online and offline spaces. Indeed, as shown by several studies, they amplify the audiences' negative emotions (Phillips, Smith, 2004), weaken trust in institutions (Mutz, Reeves, 2005), increase cynicism and encourage self-defence behaviors, often leading to social isolation (Antoci et al., 2016). When it comes to young people, who are more fragile and less equipped than other population groups, such risks are even more real.

Many countries in Europe have undertaken to implement online device projects aimed at tracking down and detecting violent content, and banning them from social media, in order to stem the growth of hate speech on digital platforms. However, a purely censored approach does not obviously get to the root of the problem. We must question why many users see hate speech or extreme speech as normal, or even desirable; why they have such a large following and generate such online sharing and dissemination mechanisms. In this regard, we must go beyond a purely punitive logic, and pay attention to the granularity of those everyday online practices underlying contemporary digital cultures (Udupa, Pohjonen, 2019).

This pilot study aims to examine the experiences of young people while surfing the web, and how they interpret these different kinds of hostile behavior on social media or online chats. In this respect, according to Toniolo Institute (2018), 63% of young people between the ages of 18 and 34 have got carried away by online heated discussions and have deliberately used offensive content in social media discussions, in 66% of cases. These data show that violent discourse, harassment practices and bullying are becoming increasingly popular, even among young people. Online resources can further fuel this hostility through exclusionary, discriminatory and derisive conducts, which can foster group identification by being often associated with forms of collective entertainment (Udupa, 2019). Indeed, references to looser social conventions, which are typical of these environments, as well as the possibility to stay anonymous, can accentuate a sense of 'deindividuation'. According to this, people perceive their individual identity as less important than the group identity, consequently disinhibiting their behavior (Oz et al., 2017). Also, the compulsive use of smartphones and the affordances of social network platforms contribute to this disinhibition effect, by exacerbating the collapse of spatial-temporal and social contexts, and increasingly blurring the boundaries between public and private (Boyd, 2014). Therefore, on the one hand the socio-technological aspects of

new media appear to significantly affect these phenomena; on the other, violent behavior online (including direct activities and sharing violent content) clearly appear as practices that are constitutive of identity and political subjectivity (Udupa and Pohjonen, 2019). Within this scenario, also political representatives play a major role. Instead of committing to pacify public opinion, they seem much more interested in riding the wave of dissent, especially through their social accounts, by resorting to hate speech, mocking and bullying practices against opponents and others. Restraint and moderation, which once characterized traditional political rhetoric, have now given way to feelings of hostility and demonization of opponents, aiming to galvanize followers and to instigate anger and social discontent. Indeed, this sharp communication style is intended not just to increase political visibility, due to uncivil messages' ability to engage users (Muddiman, Stroud, 2017). It also bridges the gap with ordinary people, who can identify more easily with such practices and styles, rather than with complex and abstract theoretical-political arguments. Although the best example of this strategy is undoubtedly Trump's use of Twitter (Kenski et al., 2017), there are some concrete examples in Italy as well, as shown by the social media campaigning for the 2018 general election (Rega, Marchetti, 2019).

Starting from these premises, this work focuses on an important segment of society, consisting of young people who grew up with Internet, in order to analyze their relationship with violent and aggressive online communication, both by their peers and political representatives. The attention is focused on two phenomena that were distinctly studied in academia: cyberbullying by young people (Langos, 2012; Tirocchi, 2015) and the different forms of incivility by politicians (Herbst, 2010; Mutz, Reeves, 2005). The goal is to examine the perceptions and meanings attributed by young people to the different types of hostile communication, by assessing the level of acceptability of each of them and its variations, depending on different contexts and actors (interpersonal; online interactions with institutional actors). In the following paragraphs, we will briefly explain the study, and discuss findings and implications.

2. Aims and Methods

This exploratory research on young Italians (16-34 years) was conducted within a wider study project, aimed at studying hybridizations between cyberbullying and incivility, in online environments. The study follows two guidelines:

1. The perceptions of the acceptability of the different forms of online cyberbullying and incivility;
2. The direct online communication experiences, intended to evaluate the tools used, the behavior/content conveyed, and their relationship with specific digital contexts.

An online survey was carried out, consisting of 28 closed questions, including Likert scales and questions presented in previous studies on incivility and cyberbullying (Pew Research Center, 2018; Stryker et al., 2016). A pre-test involving 25 respondents was made in May 2019. Instead, the survey was published online on the CreateSurvey platform (05/16/2019 to 06/01/2019) and was answered by 290 respondents. Some empirical evidence is presented below.

3. Findings

The data reveal a prevalence of female participants (71.7%), with a 96.9% being Italian citizens. The majority of the survey respondents live in a region in

the North Italy (54.8%), followed by South and Islands (27.6%), and by Center (17.51%). They live with family (75.9%), friends (13.4%) or partners (8.3%). Regarding education, about 69% has a high school diploma and 22.1% owns a university bachelor's degree. The median age of participants is 23.9.

Beside demographics, it is important to focus on findings related to some key areas of the study. In particular: a) media consumptions patterns, highlighting the impact of social media and instant messaging tools; b) online harassment/cyberbullying communication behaviors on social media, both performed and experienced; c) acceptability of cyberbullying behaviors among peers; d) acceptability of online incivility behaviors by politicians.

As showed in table n.1, respondents reported a high use of digital media to search for information. Online newspapers and news websites are the most used channels for every day information seeking (59.7%), followed by Facebook (57.9%), and by friends and relatives (57.6%). Instagram is daily used for seeking information by 52.4% of the sample, a data that needs more analysis, since this site has been rarely studied for this use in Italy. Moreover, traditional media still play a role, especially television which is used at least weekly by 85.5% of the respondents, while newspapers appear to be less frequently used to get information (i.e., 9% every day) compared to other channels (i.e., radio 19.3% every day). Furthermore, Twitter has never being used by 64.9% of the sample, but it is used daily by 15.2% of the respondents.

TABLE. 1. *Information channels and related frequency of use (%)*

Media/Channels	Every day	Sometimes a week	A few times a month	A few times a year	Never
Television	55.17	30.34	7.24	4.83	2.41
Radio	19.31	38.28	19.66	8.62	14.14
Newpapers and magazines	8.97	31.38	29.31	18.97	11.38
Online newpapers and news sites	59.66	29.31	8.28	1.72	1.03
Facebook	57.93	16.55	8.62	2.41	14.48
Twitter	15.17	7.93	6.9	5.17	64.83
Instagram	52.41	13.45	4.48	3.45	26.21
Other social media (eg., YouTube)	36.90	23.10	16.21	6.55	17.24
Friends and relatives	57.59	29.31	8.97	2.07	2.07
Other channels	14.14	17.93	15.86	13.10	38.97

Focusing on social media, 14.9% of the sample is always connected to these platforms, while the majority of the respondents stays online between 2 to 3 hours per day (58.6%). In total, 94.1% of respondents are Facebook users, followed by Instagram (87.6%), YouTube (67.9%) and Twitter (40.3%). Chats and instant messaging platforms (IMPs) are extensively used: in particular, WhatsApp (99.7%), Facebook Messenger (72.4%) and Telegram (42.8%).

In relation to cyberbullying, the survey focused on two types of behaviors: those experienced and those directly performed by respondents, both on social media and on IMPs.

Regarding the first type, data appear to not show differences among platforms: approximately two-thirds of our sample have experienced at least one form of online cyberbullying, with social media (71.7%) slightly higher than IMPs (67.24%). Similar findings emerged also in other countries (Pew Research Center, 2018), confirming a major role played by these tools for cyberbullying.

The most common form of online harassment action perpetrated on both platforms is receiving embarrassing images without request (42.8% IMPs vs. 35.9% social media), followed by offensive name calling (25.2% social media vs. 26.21% IMPs), and the spreading of false rumours (24.8% IMPs vs. 21.7%

social media). In addition, 'cyber- stalking' (a form of cyberbullying dealing with 'where you are, what you do, etc.', not being executed by parents) is more frequently on IMPs (24.5%) compared to social media (17.9%) as reported in table n.2.

TABLE. 2. *Cyberbullying activities experienced in IMPs (%)*

Cyberbullying activities	Yes	No
Offensive name-calling	32.76	67.24
Being physically threatened	17.93	82.07
Being repeatedly offended by some friends /acquaintances	35.86	64.14
Spreading of false rumors	1.03	98.97
Someone shared embarrassing images of you without your consent	15.86	84.14
Someone shared sexual images of you without your consent	21.72	78.28
Receiving embarassing imagines you didn't ask for	11.38	88.62
Constant asking of where you are, what you are doing, who you're with, by someone other than a parent	7.59	92.41
None of the above listed things	25.21	73.79

About the second type of behavior, focusing exclusively on social media, less than 20% of respondents reported to have executed cyberbullying activities against peers or acquaintances. The most perpetuated harassment behavior is 'make fun of and mock a friend/acquaintance' (17.9%), followed by 'posting embarrassing images of a friend/acquaintance without permission' (12.4%), and by 'sharing videos of a friend/acquaintance without authorization' (10.7%). All other cyberbullying behaviors involve less than 10% of the sample (see table n.3). Furthermore, it is interesting to highlight that about 20% of respondents affirmed to have shared news that later turned out to be fake ones, confirming the diffusion of this digital practice among young Italians.

TABLE. 3. *Cyberbullying activities carried out in social media (%)*

Cyberbullying activities	Yes	No
Threaten to spread embarrassing content related to a friend/acquaintance	2.41	97.59
Send messages, photos or videos using the account of a friend or acquaintance without permission	8.97	91.03
Create a social media profile to damage a friend/acquaintance	1.38	98.62
Make fun of a minor friend/acquaintance on social media for physical attributes	1.38	98.97
Share sexual images of a friend/acquaintance without permission	1.38	98.62
Post embarrassing images of a friend/acquaintance without permission	12.41	87.59
Make fun of and mock a friend/acquaintance	17.93	82.07
Physically threatening a friend/acquaintance in a public way	0.34	99.66
Share videos related to a friend/acquaintance without authorization	10.69	89.31
Post false or intentionally misleading information about someone to embarrass him/her	3.1	96.9

A third area of findings was related to investigate the perceived acceptability of aggressive communication behaviors on social media. As shown in table n.4, the majority of cyberbullying forms listed in the survey were considered 'very unacceptable' by more than three quarters of the respondents. In particular, the most considered 'very unacceptable practice', is 'to post a sexual photo or video about a friend/acquaintance without consent' (93.8%), followed by 'write a post containing offenses related to race/religion/sexual orientation/gender of a friend/acquaintance (88.6%), and posting a message to attach a friend/acquaintance based on physical or personal traits (76.9%).

TABLE. 4. *Perceived acceptability of cyberbullying activities in social media (%)*

Cyberbullying indicators	Very acceptable	Not acceptable	Just acceptable	Quite acceptable	Not at all acceptable
Post a sexual photo or video about a friend/acquaintance without consent	93.78	4.48	3.00	0.00	0.69
Write a post containing offenses related to race/religion/sexual orientation/gender of a friend/acquaintance	88.62	9.31	1.38	0.34	0.34
Write a post attaching a friend/acquaintance based on physical/personal traits	76.90	20.69	1.72	0.34	0.34
Write a post containing false or intentionally misleading statements about a friend/acquaintance related to positions/actions	76.21	21.03	2.41	0.34	0.00
Write a post about gender/race/religion/sexual orientation involving a friend/acquaintance using stereotypes	72.41	21.38	4.48	1.38	0.34
Write a post insulting a friend or acquaintance	70.69	23.45	3.45	1.72	0.69
Write a post containing hashtag of derision against a friend/acquaintance (eg. #fat, #bigass, etc.)	67.59	20.69	7.59	3.45	0.69
Post a photo or video of a friend/acquaintance in embarrassing situations without consent	50.59	32.41	13.1	3.79	0.00
Write a post against the positions/ideas of a friend/acquaintance using uppercase and exclamation marks	41.03	26.21	18.97	9.66	4.14
Write a post containing sarcastic or derisive jokes about a friend/acquaintance	38.28	33.10	18.62	8.28	1.72
Post a photomontage or an ironic meme with the image of a friend/acquaintance	14.14	12.07	29.66	34.48	9.66

Moreover, the less perceived 'unacceptable' social media behaviors are to 'post a message against the ideas of a friend using uppercase and exclamation marks' (67.2%), and 'to write a post containing sarcastic or derisive jokes about a friend or acquaintance' (71.4%). The results also reported other statements specifically connected with digital practices that are popular on social web, like using memes and emoticons. The majority of respondents consider 'posting a photomontage or a meme with the image of a friend/acquaintance' acceptable (73.8%), highlighting the role of irony and sarcasm in these digital practices. The last part of the survey investigated the acceptability of incivility communication behaviors carried out on social media by politicians. Table n.5 reports the complete breakthrough of the perception of incivility practices on social media.

The three forms mostly considered 'very uncivil' are to write a post containing offenses related to race/religion/sexual orientation/gender (88.3), to post a message about political issues using intentionally false or misleading arguments (82.4), and writing a post on political issues by exploiting the facts to distort reality (82.4). Instead, perceived lower levels of unacceptability referred to behaviors such as posting a message in which another politician is defamed, attacking his/her moral integrity (54.1 totally unacceptable), and writing a post about ethnic/religious minorities using capital letters or exclamation marks (60.7 totally unacceptable).

TABLE. 5. *Perceived acceptability of incivility in social media*

Incivility indicators	Very acceptable	Not acceptable	Just acceptable	Quite acceptable	Not at all acceptable
Write a post containing offenses related to race/religion/ sexual orientation/gender	88.28	9.66	1.03	0.34	0.69
Write a post about political issues using intentionally false or misleading arguments	82.41	15.17	1.38	0.69	0.34
Write a post on political issues by exploiting the facts to distort reality	82.41	15.17	1.38	0.69	0.34
Write a post about ethnic/religious minorities (migrants, muslims) using hashtag like #tuttiacasa	78.28	15.52	4.83	0.69	0.69
Write a post attacking another politician based on personal traits (not for ideas and/or positions)	77.93	18.62	1.72	1.03	0.69
Write a post with statements about another politician that are false or intentionally misleading about positions/actions	77.93	18.28	2.76	0.34	0.69
Write a post about ethnic/religious minorities (migrants, muslims) using stereotypes	76.9	16.55	4.14	1.03	1.38
Write a post containing hashtag of derision against another politician (eg. #Pinocchio; #psiconano; etc.).	65.86	24.14	6.21	3.45	0.34
Write a post about political issues using vulgar language (caxx; incaxx)	60.69	26.21	8.97	3.10	1.03
Write a post about ethnic/religious minorities (migrants, muslims) using capital letters and/or exclamation marks	60.69	20.00	9.31	6.90	3.10
Write a post in which another politician is defamed, attacking his moral integrity (corrupt, mobster, etc.)	54.14	27.59	12.41	3.79	2.07
Write a post containing statements against another politician stressing ideological traits (traitor, anti patriotic, communist).	54.14	33.1	8.97	2.76	1.03
Write a post insulting another politician	52.07	35.52	7.93	2.07	2.41

Conclusions

This research aimed at studying hybridizations between cyberbullying and incivility on online platforms. After performing a literature review, an empirical pilot study explored the range of digital communication practices by 290 young Italians and investigated their perception of bullying and hostile behaviors within the Internet. In particular, we explored the different meanings and levels of acceptability according to the peculiarities of different online contexts. Findings show how social media and IMPs play a central role in information seeking but also to relate with peers and politicians. Cyberbullying is widely spread on social web, furthermore, some behaviors are perceived as forms of entertainment of digital youth cultures. As a fluid phenomenon, cyberbullying and incivility show several similarities in terms of dimensions and effects. They are pervasive throughout the connected life of citizens, impacting negatively on the quality of relationships among people and institutions. In particular, the pervasive use of social media has reduced the distances between the communicative behaviors of politicians and lay publics, making the areas of interconnection between their practices even more visible and observed as a continuum of communicative actions influencing each other. This process requires the adoption of a holistic approach, in order to frame these phenomena within a broader reflection on the contradictory characteristics of contemporary digital communication practices and on their negative effects on online discussions.

Hostile speech as well as cyberbullying represent current phenomena that should be deeply investigated in further studies, trough also qualitative methods.

They also need specific and coordinated interventions by different social actors to mitigate their increasing negative effects on society. A milestone should be an extensive investment in media education and digital literacy in order to build a critical awareness of the use of digital technologies among the civil society. This will increase the skills and competences necessary to digitally interact in an informed and conscious manner, thus reducing the spread of aggressive online communications.

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Media Education. Teens' Voices and Perspectives for Different Media-Educative Actions

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Keywords: *Media Education, Teens, Digital Media*

Introduction

Some adults take a simplistic approach to the relationship between adolescents and digital media that is based on the fear of digital media and the trivialities of a world that must be analysed more carefully (Boyd, 2014; Ito et al., 2009). The young generations regard technology as a vector of dangers connected to privacy, to the increase of social inequality and to dependence. They also see it as the creator of novelty for participatory and civic engagement and an important means to subject empowerment (Buckingham, 2008).

When they speak about digital media and teens, it is not uncommon for the media and adults in general to use a set of Keywords that condense the preoccupations that we are speaking about. These words include addiction, obsession, danger, superficiality, low attention, incapability and so on. Frequently the internet is compared to a gun in children's and teens' hands because it has great power but cannot be controlled by the users. This kind of (simplistic) view entails a deterministic view of technology and its role in society. Media are interpreted as mechanically causing social and psychological changes and are not seen as part of a more complex system. An analysis is used that oversimplifies reality and wrongly perceives the relation between technology and society, a relation that is, instead, strongly connected to social processes and to the context in which it evolves.

This short essay aims to problematise the relationship between adolescents and digital media in relation to the media-educative activities designed for young people during their education. The goal is to give teachers, educators and adults in general useful ideas in order to create with young people (and others) discourses and practices able to position the uses of technologies within everyday activity, as more recent approaches to media education (Buckingham, 2006; Rivoltella, 2001; Tirocchi, 2013) suggest.

1. Media education

Media education involves the «knowledge and domestication of the media universe and as a meta-cognitive experience on the process of construction of the communicative message […] So, it is research and responsibilities, but also education, interpreted as the development of the critical sense necessary for the reading of communication without apocalyptic prejudice and capable of consciousness evaluation» (Morcellini, 2004: 23). Following this definition, we can affirm that in media education the media do not represent simple channels of transmission for the message; they are an «integral resource for formative intervention» (Rivoltella, 2001: 65). Consequently, the statutes of media education intrinsically rally a double educational action. The technology in the pedagogical path, on the one hand, is seen as a set of instruments that help to

transmit traditional culture (education with media) and, on the other hand, as the object and subject of culture (education to media).

Buckingham (2006) describe the evolution of media education from the 1930s to today, which has, throughout its history, assumed different forms in relation to how prevailing scientific orientations have considered media and culture. From 1930 to the 1950s, the critical and protectionist approach was predominant, focussing on the media's effect and underlining the manipulative influence. So, what was retained as important was to teach young people to distinguish and to resist the commercial coercion that the media imposed. We could say that media education was a sort of vaccine against media infection.

In the 1950s, attention shifted to cinema, and teachers' work consisted of helping students to undertake a critical analysis of film and other media. Media closer to youths' own consumption (music, comics, etc.) were ignored. In the 1970s, focus moved to screen education and the demystification of media, stimulated by Barthes's opus *Mythologies* (1957). Media education's focus concerned the lack of transparency of the media—people needed instruments to unveil the ideology subtended in media messages and that is functional in the cultural hegemony of dominant groups. With the introduction of digital media in the form of suspicion, there was a turn towards sympathy for and welcoming of the media. Buckingham (2007) called it the preparatory phase, a period during which media education's task seemed mainly the assuming of the role of facilitator and spreader of the use of new media.

Contemporary approaches to media education have some common characteristics (Calvani, 2010), such as the view of the media as fundamental instruments of the regulation and maintenance of democratic systems, a focus on the subject as media producer, the great relevance of studies on behaviours connected with the use of the media and the view of the integrated use of the media as a fundamental factor for new generations.

Over the years, media education has come a long way. International organisations and institutions, such as UNESCO, the European Union and Ofcom, insert it in a relevant way into their agendas (Ranieri, 2010). Furthermore, didactic practices based on the technology of communication have come to be widespread in schools. Unfortunately, this kind of change does not come with adequate training for teachers or a shared understanding of an institution that could have a central role in the mediation of the media (Tirocchi, 2013). If we consider media-educative practices in Italy, schools have frequently neutralised communication technology in its educational practices, transforming media into simple channels that transport messages, rather than having considered them as complex cultural instruments (Parola, Ranieri, 2011).

2. Methods

My research focusses on students in the first three years of upper secondary school and aims to understand (a) what these students think about their past media-education experience, (b) their expectations of media-educative activities, (c) the topics connected to digital media that they care about most and (d) what characteristics they expect a media educator to have. The research involved sixty teenagers, both boys and girls, between the ages of sixteen and eighteen, selected by a theoretical sampling. A total of 10 schools participated (of 12 that took part in the media education project—three lyceums, four technical schools and three vocational schools). The interviews were audio-taped and were transcribed verbatim. The empirical material analysed using thematic

analysis, a specific model of narrative analysis aimed at finding common thematic elements across participants and the experiences they report.

Theoretically and methodologically, the research was based on the idea that children and youths (considering positions in specific relational networks) are subjects with their own agency that are able to elaborate their own vision of the world and cultural construction (Corsaro, 2009). For this reason, I considered interviewees as active producers of culture in the complex negotiation of social life and the construction of a social world (Corsaro, 2003). In other words, adolescents are the subject of the study more than the object of it.

3. Results

3.1. Past experiences of media education in the school

Teens did not perceive the media-educative activities (when proposed by the school) as an organic activity in the curriculum and considered the activities as isolated events that the school offered them. Interviewees, in general, spoke negatively about media-educative activities they have experienced, defining this kind of experience as fundamental but too normative, 'boring', 'cold', 'without novelty', 'not useful', and 'far from their experiences'.

> I think it is important to learn about media. They surround us, and sometimes could be dangerous. I am able to use them, but I recognize that I have to improve lots of things. And I want to discover those things. But, not in that way. It was boring: a person that speaks for two hours about how it is dangerous. Ok, I understood that it is dangerous and so what? You cannot just say to us not to download a videogame. Give me money to buy it! [laugh] I mean… let me understand how to protect myself. Otherwise you repeat what teachers, parents, and so on say. And I am tired of listening to the same things. (Boy, 16 years old)

Some interviewees described the media-educative activities as an imposition placed by the school that were not, in their view, useful.

> «I did it because I had to. It was during school, how could I say 'I do not care'? I did it and then everything was like before but I skipped a couple of school hours!» (Boy, 16 years old)

3.2. Topics

Interviewees usually defined themselves as competent users who know how to move across digital platforms, but they declare they need help to use technology with greater awareness. By focussing on the topics that they consider more important, we can connect the different answers to gender and type of school. Girls who attend lyceums were more likely to ask for activities that require the digital media they use their social interactions, those that intertwined them with themes such as love, intimacy and cyberbullying. They were interested in how (digital) media can affect identity and relationships with potential partners or friends. Privacy was another important point for these students, and they asked for tips to manage the so-called privacy paradox.

> «If you want to be… mmm… popular you have to put your photo on social [media]. Or… you want to share with your friend something. But it could be risky. Everyone says it to us… but no one helps us to do it in the right way. It is not only a problem about to do it or not to do it… it is different. It is what I need (Girl, 15 years old)

Girls attending professional schools showed more interest in how to prevent sexual assault. They were interested in privacy, avoiding situations where strangers could bother them. They asked for methods to cope, without affecting social standing, with the aspects if life that their peers and adults judge negatively. Girls, then, asked for help to avoid assault and to better manage relationships without suffering.

> «I need to understand how to protect myself from people that bother me on the internet. Ok, they say not to put a photo with bikini or something like that… But it is different. What happens if I block someone for example? And then… ok, you can say do not do this or that, but if you want to be a bit popular, you cannot show yourself like a nun» (Girl, 14 years old)

Boys' answers were more likely to be connected to technology. In this case the answers seem rather similar between lyceum, technical and professional students; interviewees requested technical instruction on how to protect themselves. They asked for information that would help them protect themselves from external attack, by a hacker, for instance, to secure their own data—bank accounts, credit cards and photos/videos they have stored in their computers or smartphones.

3.3. Media educational activities

The teens requested activities that better reflected their experiences, which would enable deeper conversations and help cultivate solutions and awareness. During the interviews, they frequently criticised past activities for being too distant from their everyday lives. Interviewees frequently underlined the necessity, in their minds, that activities are useful to understand the ways to cope with problems rather than merely identify them. Adolescents frequently ask for the guidance of an educator able to help them to find solutions to problems that might occur in their lives.

> For example, cyberbullying. Ok. Do not offend, do not do it, bla bla bla. But... what can we do if it happens? We want solutions. How to avoid something and fix other things. Not just rules (Girl, 14 years old)

> «If someone helps us to do… Explaining and let us try. It could be better. Otherwise it's theory. If I have a problem what can I do. Or… how can I avoid that fake news circulating or how can I understand that it is fake? Let me show, please. Do you understand what I mean? (Boy, 15 years old)

3.4. Media educator

Regarding the ideal characteristics of media educators, the majority of interviewees describe a stereotypical figure of a young man as the most indicative of the ability to help them improve their digital literacy. Both the boys and the girls who took part in my research usually cited a young educator as more competent in relation to media, suggesting that they have incorporated the rhetoric of 'digital natives' and all the stereotypes that are connected to this view. Another desirable characteristic of the media educator shared by interviewees is the educator's gender. Interviewees identified men as better in this field, showing a strong gender stereotypes (Bimber, 2000). The media educator that interviewees look for is funny, able to involve them with jokes. Youths asked for more from adults than instruction on how to live their lives.

Conclusions

The interviews revealed that there is a great deal of work to be done. Focusing exclusively on the technical aspect of digital media reinforces the borders between the online and offline world that, in teens' lives, are part of the same continuum (Livingstone, Helsper, 2007). Media education should help adolescents to better understand this continuum and work on the online and offline dimensions and relationships in a way that recognises that they are connected (Raine, Wellman, 2014).

To do this, teens need someone who is able to listen and to speak with them in their language—someone who recognises that digital media are part of their culture (Ito et al., 2009). They are tired of roles that they did not construct. We need media educators who can be the guarantors of a new form of generational pact, one founded on the co-construction of the rules and instruments. The interviews show us that a top-down approach—where the adults transmit information only from their own point of view—is a losing strategy.

In media-educative activities, it is necessary to start from what youths know, from their interests, from the pleasure of using media that teaches them to reflect on the use of media and the economic and social factors connected to it. In this way, critical analysis is seen more as a dialogic process than a necessity to arrive at a predefined position (Buckingham, 2010).

Finally, as we saw from the interviews, it is necessary to remember that an incisive media-educative action acknowledges some important variables, such as socio-economic background, age and effective experience with media. Activities that do not give sufficient consideration to these factors risk being useless or enlarging the gap between adults and youth in the fields of media and digital media, as interviewees told us.

In other words, we should break down limits and symbolic controls created by adults to construct, together with teens, the necessary safety tools. It is possible only by seeing media practices from a point of view that fosters the convergence of liberty and protection. The media education that the analysis suggests is dynamic, dialogic and able to emerge from a rigid technical shell to re-evaluate the social factors. A media education like this could be a discovery and problematizing of what is now taken for granted, a critical discussion of everyday practices and an empowering of the participative and inclusive capability of the media.

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Rethinking Human Body between Lay and Expert Knowledge Suggested by Self-tracking Technologies

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Keywords: *Embodiment, Practices, Sociomateriality, Knowledge, Self-tracking technologies*

Introduction

The use of digital technologies for monitoring movements, posting messages or following friends on social networks, rating restaurants, or an hotel, a film or a series, generates data tracks that offer new possibilities of visualizing and knowing behavioural characteristics. Particularly, digital technologies are even more used in order to self-track everyday practices and biometrics information, such as weight, calories intake, mood, body temperature, heart rate, blood glucose, etc. (Lupton, 2013; 2016; Bianchieri et al., in Corbasiero, Ruspini, 2016; Maturo, Setiffi, 2016; Pantzar, Ruckenstein, 2015).

These technologies rise several questions. If, from one hand, they can contribute at the constitution of democratic spaces of non-formal learning (Benson,Harkavy, 2002; Starke-Meyerring, Wilson, 2008); from the other hand, they can be understood as neoliberal devices that shape 'ideal citizens' responsible of their own wellbeing aimed at constant self-improvement (Apple et al., 2012; Lupton, 2016; Selwyn, 2013).

This paper draws on literature from self-tracking practices (Lupton, 2018), the field of Science and Technologies Studies (STS) (Latour, 2005; Law, 1994), and the principle of symmetry between social and material – sociomaterial (Landri, Viteritti, 2016; Sørensen, 2009) – in the reconfiguration of agency as a relational capacity realized through the intra-actions between human and non-human actors (Barad 2003-2007). The aim is to question the learning processes embedded in self-tracking practices contributing to the discussion on the turn to practice and embodied knowledge (Gherardi, 2017) that is back through the materiality of digital technologies used in everyday life.

1. Bodies and data in the everyday life

Self-tracking practices are reconfiguring our experience of embodiment, our relationships and our meanings of body through the quantification of the self. Self-trackers experiment on their bodies through the emergence of 'personal analytics' practices that typically aim for self-knowledge.

In this perspective, the body becomes an assemblage that can be scrutinized and separated into a series of virtual flows. The result is that flows exist into assemblages of heterogeneous elements. The elements that compose assemblages are multiple, comprised of social and material parts and processes. Self-tracking technologies standardizes these flows that can be surveilled and controlled by subjects, transforming the body into digital information, that are mobile and comparable. The body is broken down in different settings through a series of 'data doubles', that circulate in «surveillant assemblages» (Haggerty, Ericson 2000). Surveillance has become a salient topic in the analysis of how self-

tracking practices emerge as part of an ongoing process in which body is abstracted by subjects and controlled at the same time by governments and markets.

Here, the body, translated as information through these technologies, becomes a heterogeneous assemblage. As Latour (2004, 205) underlines, «to have a body is to learn to be affected, meaning 'effectuated', moved, put into motion by other entities, human or nonhuman». The materiality is able to render the body sensitive to the differences of the world. It is that the body learns into dynamic trajectories (Viteritti, 2012) and comes to matter in the intra-action between the sociality and materiality of the world (Barad, 2007). The result is that materiality is back through, in our case, self-tracking practices.

Agency is relational and distributed through entanglements of people with technologies. Particularly, humans and apps work together in generating human-app assemblages (Lupton, 2018), in which emerge knowledge as a doing, not only a mental activity, situated and enacted within and across humans and nonhumans. Apps, directed at monitoring body, inscribe knowledge that can be reconfigured through the daily-human-use of the app. The process of reconfiguration draws attention to how *inscribed* knowledge can *suggest* different ways to think about body. People who do not meet the inscription associated with the imagined uses can active different ways in performances of embodiment and selfhood.

2. Knowledge(s) enacted by self-tracking practices

Self-tracking apps are designed to take trace of practices. They are mediators, from one hand, of expert knowledge embedded in the script of the materiality, and, from the other, of bodily knowledge: «in the twofold sense that the body is a source of aesthetic knowledge, and that knowing how to know through the body» (Gherardi, 2006: 228). Following the literature of the turn to affect and the turn to practice, the attention is on body, embodied knowing and sociomateriality. The concept of sociomaterial practices implies that social and material are entangled, and knowledge emerges from the interconnections with material arrangements (Gherardi, 2017).

Particularly, adopting a sociomaterial perspective allows to indagate in a symmetric way the ways in which social and material, human and non-human actors, act across processes of mediation, negotiation and translation (Latour, 2005). Social becomes visible through the assemblage of heterogeneous entities which emerge though their intra-actions (Barad, 2007). The term of intra-action recognizes that bodies and objects are not distinct entities but come to matter in their interactions.

This argument enables to focus on how the smartphone can become a node in heterogeneous networks by which self-tracking apps can suggest lay and expert knowledge(s), enacted by sociomaterial practices.

3. Methodology

The research discussed here is ongoing. For this reason, we present the user's experience of Elena (invented name) as a privileged witness in order to investigate how her Smartphone becomes a digital space by which body comes to matter.

The semistructured interview, lasted one hour, was been conducted to reconstruct the role of the materiality in order to understand the subjectivity of the

user's experience. The episode-interview was used to try investigating everyday life and practices. This technique has the aim to ask the interviewee questions that lead them to tell concrete episodes and situations (Flick, 2000).

Even if she uses several apps with the scope to self-track her physical activity and calories burned, here, for the economy of the contribution, we put attention on the use of only one app: Yazio. The interview has been analyzed to investigate the turning in practice (Gherardi, 2017) of the knowledge inscribed in the script of the app. At the same time, the app has been analyzed with digital technique (Maturo, Setiffi, 2016; Lupton and Jutel, 2015) in order to describe the graphical characteristics, then the predetermination of the situation that users need to imagine, starting with the technical device and the pre-iscription (notices, contracts, advice, instructions etc.) itself (Akrick in Mattozzi, 2006).

4. Embodied knowing and smartphone

In this session, we illustrate how the smartphone carries the body into data flows that are reconfigured by embodied knowing.

Elena is mother of two children. She went to the gym before having children. Now, she has not time, so she uses the smartphone to do work-out at home and try to follow a healthy diet. She discovers the app Yazio through Facebook. Yazio is an app that provides a guide for the daily diet. Yazio tracks calories, carbohydrates, protein and fat. Each food is divided according to the caloric intake, that is evaluated regarding the user's personal goals (strengthening the muscles, losing weight, etc.). This app tracks also physical activity in order to estimate the calories burned.

Despite the different and plural potential uses, Elena uses the app with the scope of tracking her daily diet, and during the use she understands and learns how the world of diet works since her body. She says:

> … I set a series of parameters. So, my goal is to lose weight. I would like to lose 500 grams in a week. So, every day I have this tot available of calories which they must be further distributed as follows… this is my typical day, I have 1469 calories available of which 161 gr of carbohydrates, 90 gr of proteins and 47 of fats. Then, I add what I eat in the app, which become a database of my diet. For example, this morning I have eaten 3 'gocciole'. That calorie bombe! I add on, and he say you how many of these calories are carbohydrates, proteins and fats. Because the objective is clearly not only caloric but is also maintaining the proportion between the three main macronutrients in a certain way. This is the evolution of the diets today. You can't eat 1500 calories of only carbohydrates because you don't lose weight.

The app suggests some knowledge that are reconfigured and embedded in the everyday practices. The knowledge inscribed in the app contribute to active a process of reflection. Elena says that she enhances some aspects of her body and her habits understanding the importance of a healthy lifestyle without limitations:

> […] an important thing that I understood […] Yazio taught me to reflect about issues of sustainability. What it wins in the long time is a lifestyle that is pleasant for you […] There is not one diet. There should be a healthy lifestyle with exceptions. There is the day when you would like to eat everything, and it's ok […]

Elena are producing a chronology of her diet transforming her lifestyle into data. The food is a parameter of wellness. The app contributes to quantify the wellness transforming into data the calories intake. In this sense, Elena learns

to read the food regarding the macronutrients that she needs based on her physical activity and her goals. She tinkers with the app and use it as an indicator in order to increase her knowledge through research on Internet or reading thematic books.

Conclusions

Analyzing the material world as a result, albeit provisional, of intra-actions between heterogeneous actors – humans and nonhumans – allows us to pay attention to the ways in which bodies are inscribed and transformed into data flows, generating sociomaterial practices of self-management and self-promotion.

Elena tracks her daily diet enhancing self-tracking practices that emerge from the entanglements of the social and the material. A central aspect is that the knowledge emerges as a doing situated in trajectories of practices which are the result of the intra-actions by which bodies encounter other bodies, other material, discursive and communicational elements in technologically mediated worlds.

Thus, we propose to look the process of embodiment, since the 'body' and the 'mind' are not dichotomized but entwined and situated in sociomaterial practices in which agency is relational and distributed among material and social entities. Particularly, self-tracking practices enact an embodied [LZ1]knowing, that is the effect of intra-actions between lay and expert knowledge. Humans and apps work together achieving agency in human-apps assemblages, where bodies learn to be affected across the materiality of the worlds.

Moreover, the body acting in a more-than human world can be surveilled and controlled by governments. In this sense, analyses on the emergence of new ways of biosociality and biocitizenship become even more important. For these reasons, this contribution tried to begin a discussion on how self-tracking practices can be read as sociomaterial practice of embodied knowledge in order to underline the importance to re-think the forms of democracy in a context in which the 'bio' become a central topic in the ways of doing citizenship.

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Follow the Object. A Biographical Approach to the Study of Digital Devices in the Governing of Education

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Keywords: *Digital education governance; Lifelong guidance, Policy instrument, Biography of a digital object*

Introduction

In bringing digital devices to the interior of social sciences and of educational policy studies, science and technology studies are an important contribution in stressing that neither should technology be seen as something external to other social realms, nor should we think of it as the cause of social transformations. Technological developments are themselves permeated by axiological and political dimensions and inevitably related to power dynamics. Digital devices are social phenomena themselves: objects that are socially produced (MacKenzie, Wajcman, 1985; Wajcman, 2015) while contextually capable of producing the world they inhabit. In this respect, software studies are also valuable, by pointing out the need of paying attention not only to digital devices' characteristics and the meanings they carry from the moment of their design, but also of looking into their appropriation by social actors, into the relational dynamics surrounding these objects (Kitchin, Dodge, 2011). It is specifically departing from such non-deterministic complex view of digital devices that research on this subject would find an interesting path to be developed.

Departing from an empirical research we carried out in 2018 whose main results have already been published (Romito et al. 2019; De Feo et al., 2019), this short paper aims to move forward our previous analysis by deepening the theoretical and methodological grounds of our study in order to set the basis of future works in this field.

1. Digital educational governance

A significant and promising group of works in educational policy analysis has already been looking at digital technology through a non-deterministic view. An analysis of this body of works allows to point out, amongst many other themes and ideas, at least five signposts useful for future works in the field. First. Information technologies participate not only in the governing of education but also in the ongoing transformations of the modes of governing. Namely by allowing for a more fluid, public and overarching circulation of data which allows for a constant exposure of one's own performance, as that of others'. Something like a permanent comparison theatre-hall where all may be seen and see others. Simons (2014) calls this feedback 360, an emerging new paradigm of governing. Second. Solutions for data interoperability, that is, for data to be able to travel from one device, one software product to another, at different levels – local, national, transnational, and across different sectors – are being developed

within education (Sellar, 2017), to such an extent that we seem to be witnessing the rise of a dynamic, robust and coherent greed made of zeros and ones, fed with data that come from diverse points of the system. Some oppose this new, continuous, all-encompassing greed to the fragmented and institutional-based surveillance typical of the modern states (Kitchin, Dodge, 2011). Third. There is a significant diversification of the actors present in educational policies related with the circulation of digital data and the maintenance of digital infrastructures. Transnational organisations like OECD or the EU, multinationals on education, philanthropic organizations, national data agencies, technology professionals and companies, all are connected somehow with the development and keeping of infrastructures that collect, produce and disseminate data on education and education systems, or offer all kinds of digital-based educational services. Williamson (2016a), Carvalho (2014), Decuypere (2016) have been showing that digital devices help reaching very diverse audiences and contribute for the strategic positioning of transnational organizations, public, private, philanthropic, disseminating their own views and values on education and how it should be governed. Fourth. Digital devices are evolving to become potent centres of visualization and interaction. Users are being invited to see themselves as co-creators, as digital devices offer functionalities that allow users to play with data, their own and those of others. This is seen, by Williamson (2016b) or Decuypere et al (2014), among others, as a potent way of inviting users to enter a particular view of education and educational policies, precisely that which is contained within the device, and which it carries from the moment of its design and development. Fifth. Researchers have also been drawing on political sociology, resorting to concepts such as public policy instrument (Lascoumes, Le Galès, 2007) which seems very interesting for the study of digital devices by allowing an observation of these objects in a multifocal manner, considering their technical, symbolic and political dimensions.

2. Methodological approaches

From a methodological perspective, the literature briefly discussed above has been mainly focusing on exploring a discursive layer. As digital devices are conceived as carriers of meaning, researchers have been experimenting with ways to access, describe and interpret this meaning layer. Techniques like documental analysis are used, but also software and diagram analysis. These analyses are sometimes extended through the use of ethnographic and auto-ethnographic techniques, where the researcher puts herself in the position of the user.

Researchers in this field make as well large use of interview and content analysis. Sometimes with the aim of describing the ideas inscribed in software, for example by interviewing developers and policy makers. But also, to understand the interaction between devices and their intended users, to study the presence of digital objects in concrete settings.

Another key characteristic shared by most of the research papers discussed is that they tend to focus on particular aspects of a digital device life. In some cases, there is a focus on the social dynamics surrounding it, with descriptions of actors, networks and contexts. In other cases, there is a focus on a discursive dimension, where the meanings inscribed in the devices are explored. Still in other cases, the focus lays on the ways digital devices are received, interpreted, welcomed and resisted by social actors in concrete settings. This may well be due to the difficulty of handling different methodological approaches, an aspect fruitfully addressed by building collective endeavours where different

methodological and theoretical skills might contribute to explore a digital device through different angles.

3. Follow the object: a biography of digital devices.

Following contributions from science and technology studies and software studies, and also work within educational policy analysis, our research set out from two theoretic-methodological moves: 1) we have explored the discursive and meaning layer inscribed in a digital device; 2) based on the recognition that meaning is important as soon as it interacts with the social world, we have payed attention to what happens at appropriation level. Overall, our approach has been to 'follow the (digital) object' from its conception to its appropriation. Based on insight from organisation studies (Czarniawsca, 2009; Pollock, Williams, 2009), we acknowledge the need to study both the *use* of a digital technology within an educational setting and the conception/design stage. These means to study something like the biography of a digital object (Pollock, Williams, 2009): its trajectory. And this is what we came to consider to be a promising research agenda for the study of digital devices in the world of education.

In what follows, we briefly provide some examples of our explorations of a software for career guidance (*SORPRENDO*), with the aim of illustrating what such research projects focusing on what we are now calling the biography of digital devices may be.

4. A biography of a software for career guidance

SORPRENDO is a software product developed by a private company as the main output of a project funded by the EU in 2009. It aims to improve the quality of guidance services in Italy through the transfer of an English model and through the adjustment of pre-existing Italian educational and occupational databases. It targets secondary school students, early school leavers, workers and the unemployed. It is currently in use in lower secondary schools and in public employment services in Italy and we find it clearly integrated with the European strategies for lifelong guidance.

Our aim has been to understand how the apparently neutral and unproblematic penetration of this software within the school environment contributes to creating a new practical and discursive order within Italian schools. To this end we have observed *SORPRENDO* from various viewpoints, focusing on different dimensions and resorting to diverse techniques.

On one hand, we looked at a conception layer and focused on the meanings that are embedded in this object, observing how *SORPRENDO* acts as a vehicle for a European agenda on lifelong guidance. On the other hand, we have looked at an appropriation layer, how *SORPRENDO* is received in Italian schools, its different effects in diverse settings, its place in the reshaping of the teaching profession.

In order to accomplish the first task, we have reconstructed the history of the digital object by exploring various web-resources and documents in order to account for the condition of possibility of this object, which actors are involved, its funding and justifications. Secondly, we have analysed the *SORPRENDO* website to point out the meanings and ideas it mobilizes by using an approach that is akin to discourse analysis.

For example, through an analysis of the visual and textual elements available on the website, we could argue that *SORPRENDO* exemplifies a particular

approach to career guidance that addresses users as subjects involved in making autonomous choices. By digging into the website, we have pointed out how the software inscribes users within a specific subject position: that of a self-entrepreneur engaged in a process of valorization of his own human capital through self-scrutiny and awareness of the environment.

However, *SORPRENDO* is mainly a software that engages users in interaction with an algorithm aimed to guide them in the choosing of an educational and professional path. We have thus explored this process through an auto-ethnographic journey positioning ourselves as users.

The auto-ethnographic approach led us within the core of users' interaction with the software (consisting mainly in providing, and modifying, answers to self-perceived ability questionnaires) allowing us to uncover the complex manner through which its script makes various operations affordable. We have thus argued how the variety, openness and flexibility of the scripts communicate to users a sense of freedom. This is exemplified by the fact that *SORPRENDO* does not provide a final indication about the educational and professional path to follow. Users' answers to self-evaluation questionnaires – or users' modification of their previously answered questions – instantaneously modify the software output, the matching list (fig. 2) and this aligns with the software's aim of supporting individual activation and autonomy. Inscribed in the materiality of the software, we could thus trace an exemplification of the abandonment of a 'test and tell' or matching paradigm in career guidance in favour of a learning and development paradigm that identifies the role of guidance technology as supporting individual self-scrutiny (Brunila, Siivonen, 2016). Moreover, by providing an analysis of our interaction with the software algorithm we could point out how it is particularly the *digital* that offers new possibilities for this kind of subject engagement, as it offers functionalities that enable new forms of interaction with information beyond 'older' models of passive consumption of information: towards creating a perception of co-creation of knowledge that regards, in this particular case, oneself and one's educational and life path (Williamson, 2016b).

At last, as appropriation is always socially contextualized, we have explored two learning settings of this software enactment. Through interviews with keys informants (teachers and head teachers), our research could show how the material, cognitive and social context where SORPRENDO is enacted shapes the operations accomplished, the objectives pursued, and the meanings conveyed. We have found that schools occupying a dominant position within secondary education are more fully immersed within networks of guidance experts that can provide that sort of in-depth career guidance that can engage students in the sort of flexible interaction with the software that would facilitate self-discovery and increased awareness. On the contrary, schools occupying a dominated position within the secondary education field, experience a more 'superficial' approach to career guidance. The time devoted to career guidance activities is more limited and the software is used simply as a means to provide students with a matching list.

Closing

To summarize, the main aim of this brief paper has been to depart from our previous empirical work in order to deepen its theoretical and methodological grounds and to clarify the basis for future works in this field. Specifically, we have sketched a theoretical and methodological framework that we believe is particularly fruitful to set up studies capable of following the trajectory or the biography of digital objects in the field of education. By providing a thick

description of an object from its conception/design to its appropriation and enactment within specific contexts, we have emphasized how this approach can contribute to the emerging field of digital education governance and to studies on digitization of education.

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Online Activities: from Social Inequalities to Digital Inequalities and Comeback

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Keywords: *Online activities, Multiple correspondence analysis, Digital divide, Internet in everyday life*

Introduction

Cultural paradigm of the «network society» (Castells, 1996) goes more and more strengthening thanks to the diffusion of the mobile technologies of connection. The spread of all these technologies has 'caged' us in a Weberian exoskeleton (Schoered, 2018) in which individuals are more and more «tetheredness» (Turkle, 2011) to other people and information. This mediatization of social interaction within and between institutions and in society at large (Hjarvard, 2013) is increasingly redefining the forms of sociality and community, so much to suggest the emergence of a new social operating system, the "network individualism" (Raine, Wellman, 2012), and an increase of ways and opportunities for sociability, working, learning, problem-solving of everyday tasks.

In this scenario, however, several studies show that social gap remains and overlap the digital one. Scholars confirmed the strength of relation between social and digital inequalities both in physical access (*first level digital divide*; Di Maggio et al., 2001, Van Dijk, 2005) and in the Internet usage («second level digital divide»: Hargittai, 2002, Zillien, Hargittai, 2009, van Deursen, van Dijk, 2010, Ragnedda, Muschert, 2013, Robinson et al., 2015, Bracciale, Mingo, 2015, FUB-ISTAT, 2018). Furthermore, due to his role in daily life, in work and education, the digital divide also becomes a question of outcomes («third level digital divid»: van Deursen Helsper, 2015, Ragnedda, 2017, Ragnedda, Ruiu, 2013). In any case, the link with the status and the habitus of individuals makes the ways of internet appropriation controversial (López-Sintas et al. 2012, Zillien, Marr, 2013, Ragnedda, 2017, Ragnedda, Muschert, 2013).

1. Internet use in Italy

The work takes data of the year 2016 of the Survey on *ICT usage in households and by individuals*[9]. Regarding the first level of the digital divide, data show that the proportion of Italian households without Internet access has halved in 10 years (from 61,4 of 2006 to 30,5% of 2016). The reason for not having Internet is not so much that of costs of equipment or access (remained stable: about 15 %of the households without Internet access indicate it). Instead,

[8] *Conflict of Interests. The considerations set out in this text reflect only the authors' thoughts and are not representative of the position of the organisation of belonging. Acknowledgements. I would like to acknowledge my colleagues and friends who assisted me: Laura Zannella for everyday working together on the data, Emanuela Bologna for helpful suggestion, Mario Basevi for methodological support and Alessandro Caramis for long conversations and careful reading.*

[9] It is part of a European Survey, annually collected by ISTAT. It employs the Eurostat's annual model questionnaires on ICT (Information and Communication Technologies). In Italy, it as a module in the Multi-purpose Survey on Households: Aspects of Daily Life. The sample includes about 24.000 households and 50.000 individuals. For further information see Eurostat (2017): and ISTAT (2019).

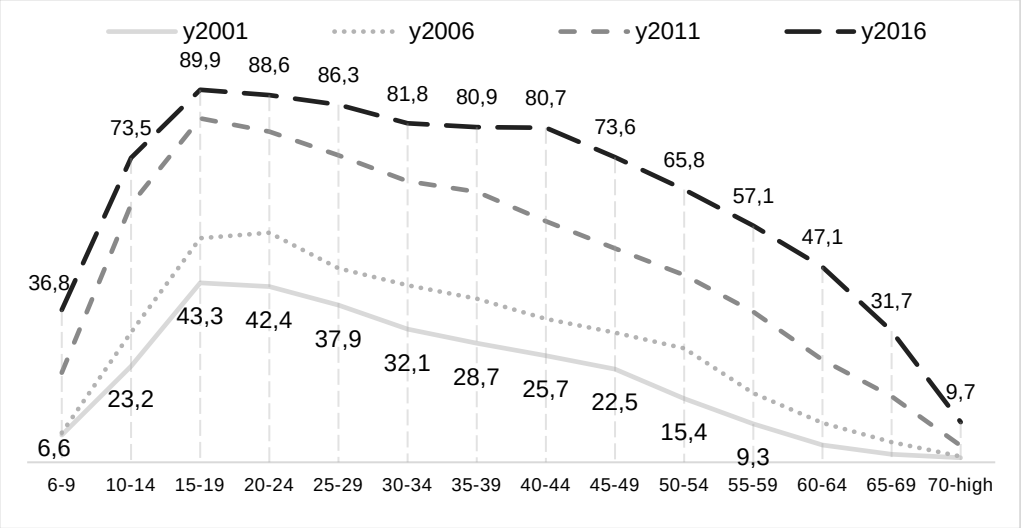
the 'lack of interest' is always less relevant (decreased of 40% in ten years: in 2016 the share is 23,6%); and the 'lack of capacity' became more and more predominant (risen 77% in ten years: in 2016 the percentage is 56,6).

To study the second level of the digital divide, we consider the individuals of 6 years old and older who regularly use the Internet (at least once a week in the last three months). In Italy, they continuously increase and in 2016 are 59,3% of people of 6 years old and older (almost 34 million).

Indeed, the use of the Internet is a generational issue. Figure 1 shows that over 15 years, the age curve rises higher and higher, but the differences among the generations remained. People that belong to Millennial Generation (in 2016 20-34 years old) and to the so-called Net Generation (in 2016 15-19 years old) show a higher rate of access that, in 2016, exceeds the 80%.

The diffusion of the mobile phones and apps has partially bridged the generational gap. The spread of these technologies, in fact, has made possible not only to expand the number of Internet users but also to unhook them from the use of the PC. Until 2011, only about 1% had never used a PC while in 2016 they already reached 9%.

FIGURE. 1. *Individuals of six years old and older who used the Internet at least once a week in the last three months by the groups of age. Years 2001, 2006, 2011, 2016. Values in %*



source: Elaboration on ISTAT, Multipurpose Survey on Households: *Aspects of Daily Life*.

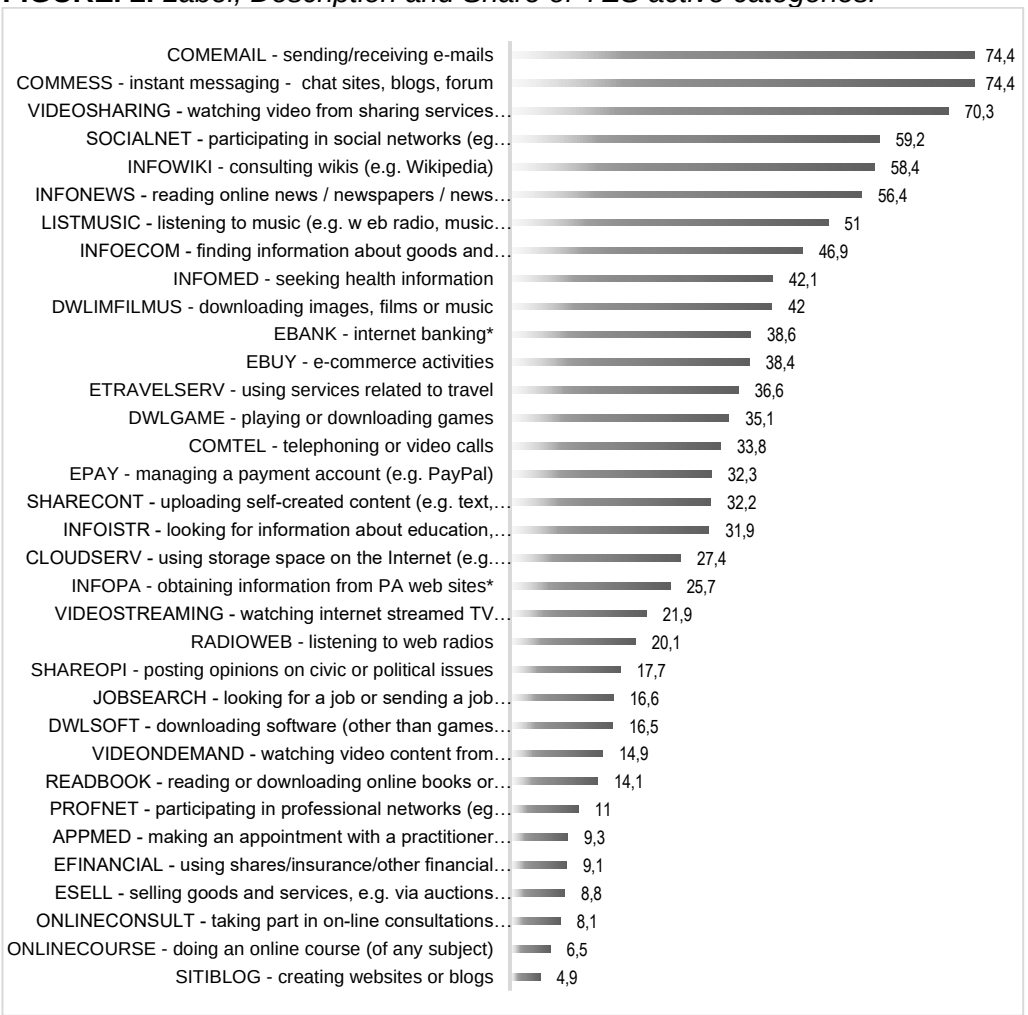
1. Building the field of online experience through MCA

The focus of the present study is on the *second-level digital divide* relating to the effective use of and ability to use the Net. Therefore, the focus is on people that went beyond the *first digital divide*. The aim is to explore the impact of personal background through the study of the activities carried out online, such as seeking information, communication and social networking, e-commerce, and so on. In according with literature, we hypnotize that, in spite of the universal image of people always on, tethered and networked, "serious" use of the Internet, more linked to human needs, as creative use of it, remain a minority phenomenon (van Dijk, 2005, Savolainen, 2008). It is due not so much or not so only to a material gap, but above all to the more complex set of values, culture and lifestyle (or habitus). Thus, the impact of a high level of socio-cultural status could be particularly visible for not only the more expensive activities but also for the more sophisticated and less for the communication or networking ones.

We considered 34 activities of the questionnaire of 2016, relative to all the different domains of daily life. To summarize the amount of this information, we have decided to use the Multiple Correspondence Analysis (MCA). This procedure, following the Bourdieu's work, fully express the social reality because it thinks in relations (Le Roux, Rouanet, 2010).

Here, it allows us to consider the structure of space of activities carried out on the Internet as a "field of online experience". From a methodological point of view, the idea of field is in a dialectic relationship with the MCA procedure (Duval, 2018). For each activity, we find two categories-variables corresponding to the binary answer Yes/No to the question 'I have used Internet for…?'. We used as 'active' variables for the formation of new variables/factors only the 28 activities carried out by at least ten %of the regular users (Figure 2). In summary, the active categories that contribute to the formation of the new factors/variables are 56.

FIGURE. 2. *Label, Description and Share of YES active categories.*



* Activity did in the last twelve months.
source: Elaboration on ISTAT, Multipurpose Survey on Households: *Aspects of Daily Life*.

We used the main socio-demographic information and some concern to the use of the devices as 'illustrative' variables (in total 59 categories associated): Sex; Citizenship, Age, Geographical repartition; Educational achievement[10];

[10] High (university), medium (upper secondary school - "diploma"), and low (low secondary school or less). Education had adjusted according to the birth cohort: for those born before 1952 we

Occupation[11], Type of home Broadband Connection, Frequency of Internet use, Pc use, Devices used for access. Through the analysis of the eigenvalues, we extracted the first three factors that reproduce almost the total percentage of corrected inertia[12] (Table 1).

TABLE. 1. *Benzécri Adjusted Inertia Decomposition (first five factors)*

Factor	*Eigenvalues*	*Benzécri correction*	*Percent*	*Cumulative percent*
1	0,22670	0,03923	93,89	93,89
2	0,08291	0,00240	5,73	99,62
3	0,04594	0,00011	0,27	99,89
4	0,04151	0,00004	0,09	99,98
5	0,03879	0,00001	0,02	100,00
Total		0,04178	100,00	

source: Elaboration on ISTAT, Multipurpose Survey on Households: *Aspects of Daily Life*.

The first factor separates the 'yes' from the 'no'. In fact, on the positive side, we find the 'no' categories of all the activities considered while on the opposite side we find the 'yes'. In addition, the yes-categories are distributed on the axis following a well-defined degree of complexity: from the more generic and easy, as e-mail, chat, wiki (nearest to the centre), to those most specific or exclusive, such as the professional network or reading online (farthest from the centre). We can interpret this first factor as the degree and complexity of digitalization of everyday life, which moves from null to high. We can observe that the digitalization follows a clear and distinct age curve. It is very low for little ones, and then gradually grows, reaching a peak for 20-24 years old, and after it begins to decrease up to the higher age groups. Furthermore, we can observe the positive association of digitalization both with the high level of education and with a high level of the professional status of individuals.

The second factor distinguishes two priority inclinations about the type of activity: usefulness/serious vs communication/leisure. The first ones, such as email, information seek, services access, are on the positive semi-axis, while the second ones, such as chat, social networks and download film are on the negative semi-axis. The illustrative variables show us that this factor also has a specific connotation based on age and socio-cultural status: young people and low socio-cultural status for entertainment and communication activities; older people and high socio-cultural level for seeking information and access to services.

The third factor, instead, helps us to make a better distinction between communication activities and leisure ones. The most contribution to factor comes from, on the negative side, by video streaming, video on demand, read a book, radio web, download software, while on the positive side there are activities such as social network, share an opinion, chat, and share contents. A low educational and occupational level is associated with leisure activities. This factor

consider the upper secondary school as high, the low secondary school as medium and only the elementary school or less as low.

[11] Employed or, for retired, employed in the past, are distinguished in three level high (higher professionals and managers), medium (employed), low (workers or other non-professional self-employed), then other categories are unemployed (included never occupied), housewives, students.

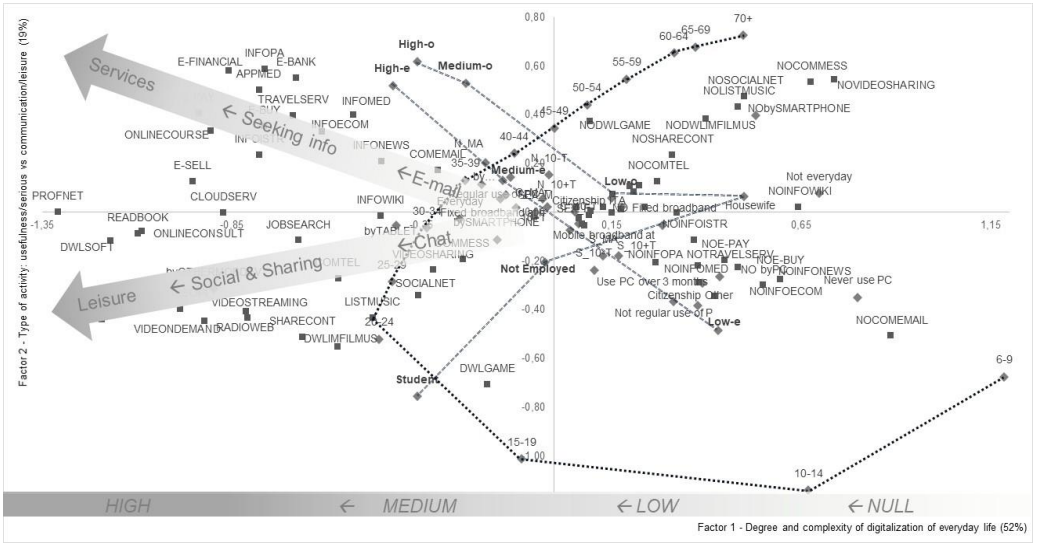
[12] We use the formula of Benzécri (1979) to 'correct' the percentages of explained variance that take into account the eigenvalues equal to or greater than the proportion 1/p where p is the number of variables. In this case, we consider only the first five factors with an eigenvalue higher than 1/28= 0,0357.

is useful also to distinguish the online experience of males and females, the firsts more oriented to leisure, the seconds to communication.

In Figure 3, we find the projection of the active and illustrative variables on the first two factors. In summary, using the first three factors, we observe a typology of the online experience of everyday life based on the intensity, multiplicity and orientation of the online activities:

1. Null or almost null digitalization;
2. Low intensity digitalization with an exclusive direction;
3. Medium intensity digitalization with a definite but more extensive and sophisticated orientation;
4. High intensity digitalization with a full range of activities.

FIGURE. 3. *Multiple Correspondence Analysis. Projections of active and illustrative variables on the first two dimensions.*



source: Elaboration on ISTAT, Multipurpose Survey on Households: *Aspects of Daily Life*.

2. Discussion and conclusion

In this study, we paid particular attention to the association of online experience with social inequalities. The educational level plays a principal role: the higher is the education, the higher is the degree and complexity of digitalization of everyday life and the higher is the use of serious activities.

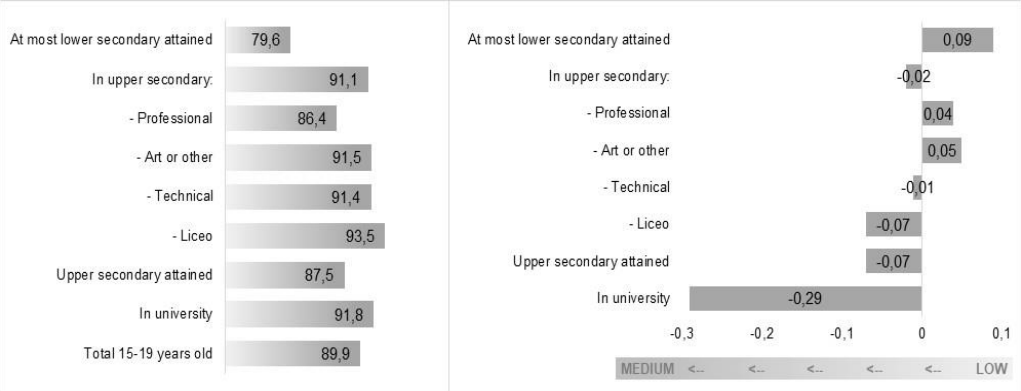
It is evident also about young people of 15-19 years old, in which we find a high share of Regular Internet Users.

For them, we can also use information about the type of school they frequent. Figure 4 shows the gap both at first and second level among 15-19 years old linked to the educational status (level attained or type of school currently frequented).

Regarding the first level, we see that, even if in general the access to the Internet is very high (89,9%), there is a difference of 4,3 points between people with High school diploma that not enrolled in University and people who continued the study. Moreover, considering students in the secondary school, the share of internet users arise until 93,5% for students of *Liceo*, with a difference of +7,1 points respect to students of professional course (86,4%). Finally, the share of internet users falls under 80% for later (in the below secondary school yet) or early leavers (have completed at most the lower secondary education and are not in further education or training).

Regarding the second level of the digital divide, the degree of digitalization grows (first factor) moving towards the highest educational status (early leavers, in upper secondary, upper secondary attained, and in university) and towards the vocational to the general course of secondary school (professional, technical, and *Liceo*).

FIGURE. 4. *Share of Regular Internet Users and Mean of factor 1 (degree and complexity of digitalization of everyday life) by educational status. People of 15-19 years old.*



source: Elaboration on ISTAT, Multipurpose Survey on Households: *Aspects of Daily Life*.

As a result, if the Internet is an opportunity for individuals, on the other hand, it sets up an imperative of self-activation that requires individual resources and could strengthen, instead of reducing, the pre-existing social inequalities. In spite of the idea of broad participation underlying the advent of the Internet, it seems to be in the presence of mechanisms of cultural reproduction, just as it has occurred for the educational gap observed with the massification of secondary education.

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The platformisation of higher education in Italy: Three case studies and a research agenda

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Keywords: *Digital platforms; Platformisation; Higher education; Virtual universities; MOOCs*

Introduction

Digital technologies are nowadays interwoven in the very fabric of our everyday lives: from health to the environment, from research to clinic, from media to politics, from economy to gender, from spiritual life to gym activities. Our personal and professional worlds are entangled in increasingly complex knots of digital technoscientific knowledges. Space and time are all but unaffected by these changes, as miniaturised mobilities (Elliott, Urry, 2010) enact new arrangements in which spatialities and temporalities shrink, stretch and overlap.

The phenomenon of digitalisation is emerging in education too. Its growing importance has been discussed in terms of a digital governance of education (Landri, 2018) that is being fabricated and enacted across Europe and beyond. Digital technologies are also relevant to the fields of school (Selwyn et al., 2016) and lifelong learning (Romito et al., 2019). Higher Education (HE) too is becoming increasingly digital: now, twenty years after the Sorbonne Declaration, within the European space of education (Lawn, Grek, 2012) a new policy agenda is emerging which calls for greater recognition of these issues into HE. Digital-based teaching and learning practices are also increasingly performed, and digital infrastructures are now crucial for governing HE on various scalar levels (Williamson, 2018).

Digitalisation processes are ever more frequently mediated by and made operational through digital platforms accessible via electronic devices. The concept of «platform society» has thus emerged to stress the inextricable relationship between online platforms and social processes (van Dijck et al., 2018). Platforms are programmable digital architectures designed to order interaction among users and aimed at the systematic collection, algorithmic processing, circulation, and monetisation of user data. They are to be intended as both technical infrastructures, political stages, and array of relationship that constantly need to be performed (van Dijck, 2013). Hence, platforms cannot be considered as mere technical or economic phenomena, but rather as socio-technical devices possessing agency and shaping everyday life (Kitchin, Dodge, 2014).

Platforms operate in disparate fields, such as tourism, news, health, mobility, governance. A 'platform education' is arguably emerging too, as learning, teaching and governance of education are increasingly mediated by and enacted through digital platforms. Education is thus undergoing a 'platformisation', to be intended as a process of continuous change in which «platform operators and their underpinning logic intervene in societal arrangements» (van Dijck et al., 2018: 198).

1. Aims and methods

Despite its growing importance, 'platform education' has scarcely been focused as a «matter of concern» (Latour, 2004). In this exploratory contribute, the platformisation of Italian HE will thus be addressed. In particular, we will attempt to trace some effects of platformisation processes on Italian higher education. Some wider remarks about platformisation will be also drawn and open questions will be put forward.

Three case studies have been followed which are situated in three different fields: the CINECA consortium, knot and weaver of managerial processes and practices in the organisational texture of the Italian HE; EduOpen, the main Italian inter-university MOOC providing open higher education; and the Italian Virtual Universities (IVUs), relevant private actors in digital higher/lifelong teaching and learning. A non-representational methodological sensitivity has been adopted (Law, 2004; Thrift, 2007). Different techniques have been used, such as historical reconstruction of policies (Landri, 2018), content analysis on website and platforms, digital ethnography (Pink et al. 2015), autoethnography.

2. Following the platformisation of higher education in Italy

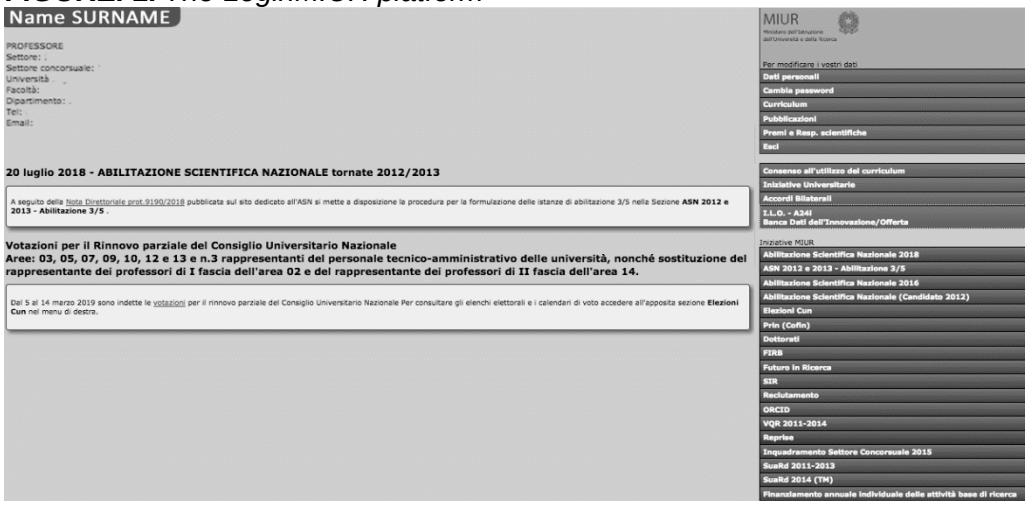
A multisite exploration of the platformisation of Italian HE has been undertaken. In order to do so, actors were followed in three fields: managerial processes, open education, virtual teaching and learning.

2.1. CINECA: Managerial processes and infrastructures

To a certain extent, the history of the private non-profit consortium CINECA converges with that of the informatisation of the Italian academic arena. CINECA was founded in 1967 by the Rectors of the Universities of Bologna, Padua, Florence and Venice. It hosted the first supercomputer available in Italy in 1969, and in the 1980s emerged as an important hub for national (e.g., GARR) and international (e.g., EARN-BITNET) academic networks. From the early years of the new millennium, CINECA started developing software for the Italian Ministry of Education, University and Research (MIUR), which became part of the CINECA consortium in 2007. In 2013, CINECA could count on 72 members.

Two CINECA management platforms can be compared which have penetrated the everyday life of Italian HE professionals: LoginMIUR and IRIS.

FIGURE. 1. *The LoginMIUR platform*

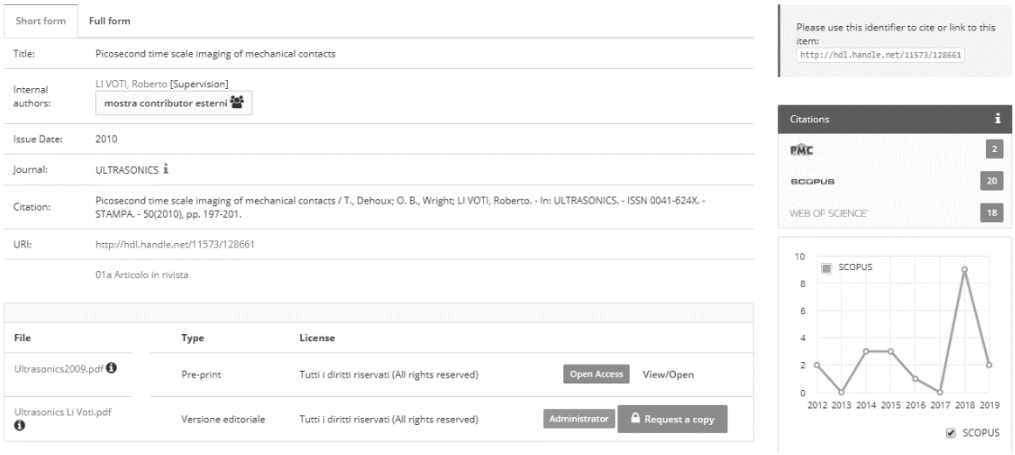


source: Screenshot of http://loginmiur.cineca.it (access: June 2019)

LoginMIUR (developed in 2007) is a personal platform from which teachers and researchers working for MIUR can manage their careers. It suggests three main affordances (Figure 1): *i*) it is an electronic archive of information collected by the MIUR; *ii*) it is a repository of initiatives from university and MIUR (scientific qualification, etc.); *iii*) it works as an electronic agenda reminding deadlines.

IRIS (developed in 2013) may be considered as the platform for evaluation of research and accreditation in Italy. It is a Current Research Information System (CRIS), i.e. a database for storing, managing and disseminating data about research conducted at an institution. It is compatible with the international CRIS standard CERIF, which was developed after EU Recommendation 91/337/CEE. IRIS is anchored to global bibliometric databases that allow to visualize the performance of research products and researchers (Figure 2).

FIGURE. 2. *The IRIS platform*



source: screenshot of an IRIS page (access: June 2019)

LoginMIUR and IRIS are very different platforms. First, they differ in the scalar level they move on. LoginMIUR is rooted on local standards and spaces, while IRIS travels on global standards and transnational networks. Also, they embed different mode of governing organisational processes: a bureaucratic government of public administration (Delvaux, Mangez, 2008), in LoginMIUR, and an evidence-based governing work through the performance and reputation of human resources, in IRIS (Ozga, 2014; Normand, 2016). They may be also compared with respect to the *affordances* they offer to researchers: LoginMIUR invites to a usage as private tool for managing one's career, whereas IRIS bears inscribed a usage as a public tool for researching, exhibiting the results of one's research and comparing them with those of others.

The platformisation of Italian HE translated by CINECA/IRIS with respect to managerial processes thus seems to have occurred as convergence to global trends in HE based on the New Public Management discourse (Ball, Youdell, 2007; Gunter et al., 2016) which is thereby made operational as a mode of governing in the Italian academic field.

2.2. EduOpen: The Italian way to open education

EduOpen is an Italian MOOC platform founded in 2014. Its peculiarity is to be an «academic» portal (Limone, 2016) providing open HE that was set up by public universities and funded by the MIUR. It is a network of public (e.g., MIUR; GARR) and private actors (e.g., CINECA, which offers the technological infrastructure; Blackboard; Paperlit). It nowadays hosts 247 courses, 55054 students, 19 institutions, 259 teachers and tutors. It offers different affordances:

orientation for high school students, teacher training, masters, business training, lifelong learning for every type of learner (Figure 3).

FIGURE. 3. *The EduOpen MOOC platform*

Source: screenshot of https://learn.eduopen.org (access: July 2019)

In 2015, MIUR approved the financing of the EduOpen MOOC project that was submitted the year before by 14 Italian universities. The same year, the Italian Rectors Conference (CRUI) published *MOOCs: Perspectives and Opportunities for the Italian University* (2015) and constituted an Observatory for Italian MOOCs. EduOpen was officially launched in 2016 and became partner of European Association for Distance Teaching Universities (EADTU). In 2017, EduOpen was accredited for teacher training and co-founded the European MOOC Consortium (EMC); the same year, the CRUI published the *Guidelines for setting up quality MOOCs in Italian universities* (2017). At EHEA Conference 2018, the EMC submitted a position paper about «the integration of MOOCs in the Bologna Process» (2018).

Until recent times, the platformisation of Italian HE through MOOCs took place mainly via bottom-up initiatives by individual universities (CRUI, 2015). In the last years, however, something began to change. As shown, CRUI engaged MOOCs as a policy issue: an observatory was set up, descriptive and prescriptive reports were published, and standards for the future were codified. On the other hand, the EduOpen network successfully enrolled the public power of MIUR in its project and connected to various European networks working on open education.

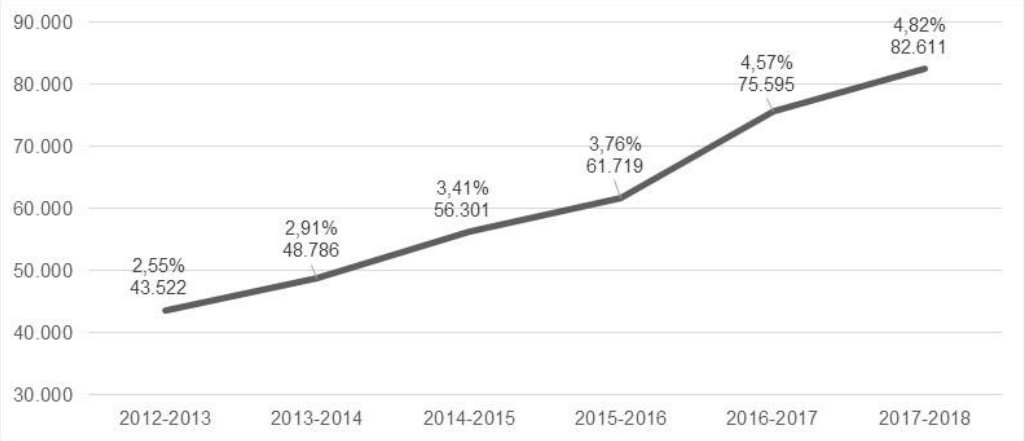
Hence, the platformisation of Italian HE with regard to open HE can be described as a process of *making associations* among heterogenous actors and practices, or as the knotting of an action net (Czarniawska and Sevón, 2011) driven by EduOpen – a process in which connections are woven and kept in place through the work of heterogeneous actors and mediators.

2.3. Virtual Universities: digital teaching and learning

Italian *Università Telematiche* (IVUs) are non-state universities providing formal HE. They thus have to comply with the legal regulations imposed by the public sector and the criteria and procedures imposed by ANVUR, the Italian agency for evaluation.

In the 2017-2018 academic year (AA), the 11 IVUs gathered 4.82% of the 1,713,129 students enrolled in Italian universities (Figure 4). While enrolments in offline universities dropped from 1,665,511 in AA 2012-2013 to 1,630,518 in 2017-2018, enrolments in IVUs almost doubled in the same period (MIUR, 2019).

FIGURE. 4. *Time series of students enrolled in IVUs. The percentages indicate the enrolled in IVUs out of the enrolled in Italian universities*



source: Elaboration on MIUR (2019)

The frantic normative production on VUs, as well as the overlapping of normative sources, led to an ambiguous and intricate jurisprudence (MIUR, 2013). Virtual HE entered the Italian policy agenda with Law 341/90, which allowed universities to set up «distance HE initiatives». At the beginning of the new millennium, the EU was simultaneously working on eLearning and Lifelong Learning, along the lines of the Lisbon Strategy. The MIUR converged with these trends with Decree 17/04/2003, which introduced criteria and procedures for VUs accreditation. IVUs thereby emerged as a policy issue, a nexus of educational and organisational practices as well as a formal education/lifelong learning option. All current IVUs sprung from the private HE market between 2004 and 2006 (Table 1). Gradually more specific criteria and procedures for VUs were introduced with Decrees 987/16 and 06/19.

TABLE. 1. *IVUs and number of enrolled students (AA 2017-2018)*

Virtual universities	*Students enrolled (2017-2018)*
UniPegaso	25.212
UniCusano	16.624
UniNettuno	11.877
e-Campus	11.437
UniMarconi	9.474
San Raffaele	4.313
UniTelma	2.475
UniFortunato	841
Italian University Line	248
UniDav	110
Uni Mercatorum	(missing)
TOTAL	82.611

source: Elaboration on MIUR (2019)

These platformisation processes of HE could thus be further explored as a *marketisation* of formal education/lifelong learning carried out by private actors standing alongside the public power as providers of instruction. Moreover, such platformisation is also leading to *change* in learning practices. Due to their online mode of existence, IVUs suggest new affordances for learners who are thus enabled to tinker with the learning arrangements with which they are entangled through sociomaterial, sociospatial and sociotemporal practices (Fenwick, Edwards, 2012) – beyond the «forme scolaire» (Vincent et al., 1994).

3. Final remarks

In this preliminary research an attempt was made to explore the processes of platformisation of Italian HE. Such processes were analysed focusing on three relevant fields for Italian HE: managerial processes, open education, digital teaching and learning.

These platformisation processes fields intercepted processes of change occurring in the Italian HE arena. With respect to the field of managerial processes, the platformisation of HE through CINECA/IRIS was analysed as *convergence* to transnational isomorphic dynamics based on NPM strategies. In the case of open education, we examined the case of EduOpen and described platformisation as *making associations*: previously dispersed actors allied in a complex network which stabilised around a common issue. As to digital teaching and learning, IVUs allowed us to explore platformisation as *marketisation* of formal HE and *innovation* in learning practices.

The platformisation processes vividly show the symbolic and material strength of platforms. Such processes are enacted by unstable assemblages of heterogenous entities: political actors, economic stakeholders, members of epistemic communities, and obviously the platforms, with their software and their agency. These processes are not neutral, as they are inscribed with values and endowed with a normative power: as shown with respect to Italian HE, they orient practices and shape social arrangements in diverse fields.

Hence, a research agenda may be traced to further develop the theme of platformisation in HE and critically investigate its implications. A relevant issue concerns democracy. In 'platform education' an ambivalence can be observed among education and learnification (Biesta, 2005), HE as a common good (Marginson, 2016) and as private property. Do platforms foster reflexivity and coparticipation, or do they rather contribute to marketisation and standardisation? Also, research could focus on whether and how the platformisation of HE might translate over time into the mobilisation and (social) construction of knowledges and competencies which may affect curricula and educational policy and practice overall. Finally, reflections could be set on how the European space of (higher) education will look like after this 'platform deluge'. How will teaching, learning, governing of education be performed? For whom? At what price?

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Digital soft skills and teaching. Macro data analysis of school survey

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Keywords: *Digital competences, Digital literacy, Didactical innovation, Teaching, Media education, Communication*

Introduction

Reflection on the digital competences of teachers in Italian schools is part of a political and public scientific debate that in recent years has inspired processes to innovate (in technical, methodological, didactic, and organizational terms) the national scholastic education system (Ferrari, 2017; Capogna et al., 2018, Scarcelli, Stella, 2017). The thinking and the scientific and academic research on the issue inevitably reflects the articulated and complex debate on competence in the general sense, the definition of which is often polysemous (Benadusi, Molina, 2018) and adaptable to cultural and operative relativism, while maintaining its semantic sturdiness[13]; interdisciplinary in its interpretations[14] that incorporate cognitive and cultural aspects in addition to procedural and technical ones.

This essay shares the perspective of the Social Sciences, according to which the development of digital competences is also affected by socio-cultural settings, relationship dynamics, and the processes of socialization, both formal (at school and in the family) and informal, of each individual (Jonnaert, 2009; Le Boterf, 2000). On the other hand, the scientific, political, and operative investment on digital competences is closely linked to the gradual legitimization of the latter as citizenship competences, in order to guarantee an education that is sustainable and open to contemporary socio-cultural transformations, while accompanying this investment in developing a greater sense of accountability and greater autonomy in daily action (Benadusi, 2019; Baldacci, 2014; Cortoni, Lo Presti, 2018).

In the twenty years between the first 2000 Lisbon Strategy and the Europe 2020 strategy, multiple initiatives oriented towards the processes of including digital culture in the school system have been promoted and supported, with particular reference to the debate over competence[15]. In Italy, through the National Digital School Plan (*Piano Nazionale della Scuola Digitale* – PNSD), a process was initiated to contextualize the European strategic purposes with – and to re-adapt them to – the national educational system. Specifically, the PNSD focused its attention on 3 main aspects: 1. Introducing technologies into

[13] In this regard, Giancola and Viteritti (2019) refer to the concept of «boundary object)..
[14] From psychology to economics, from sociology to paedagogy
[15] Some relevant regulations of the European Commission: *Proposal for a Council Recommendation on key competences for Lifelong Learning* (2018); *Report on Literature Review of Reforms related to the 2006 European Framework of key competences for Lifelong Learning and the role of the Framework of these reforms* (2017); *Education and training 2020 Work Programme thematic Working Group 'Assessment of key competences' Literature review, Glossary and examples* (2012); Recommendation of the European Parliament and of the council of the 18 December 2006 on key competences for Lifelong Learning (2006); OECD Competency framework (2014); OECD, *the Definition and selection of key competencies* (2013); UE, *Digcomp: A framework for Developing and Understanding Digital Competences in Europe* (2013); UE, *Developing key competences at school in Europe. Challenges and opportunities for Policy*, Euridice Report (2012); UE, *A new skills agenda for Europe* (2016).

daily school life; 2. Trialling new models for organization and for digital teaching; 3. Developing didactic and applicative resources able to implement digital culture.

The first investment plan on PNSD (from 2007 to 2014) worked above all on the infrastructural and technological equipment of Italian schools, and on basic teacher training. On the other hand, the second investment (from 2015 to 2020), included in the *Buona Scuola* decree (Italian Law no. 107/2015), was orientated towards the last two objectives, working on 4 areas:

1. Strengthening the Tools.
2. Developing Competences and content.
3. Promoting quality training in digital competences and in school innovation processes.
4. Strengthening the path of accompanying towards digital.

In light of the brief outline that has just been introduced, the essay proposes a national exploratory investigation on the digital competences of teachers in middle schools conducted in 2018 by *Osservatorio Mediamonitor Minori* at Sapienza University of Rome[16]. Three years after the start of the second investment in PNSD, one of the main objectives of the research was to investigate the process of including digital in teaching practice, concentrating above all on implementing the Competences and content area.

1. The design of the research

1.1. Objectives

Starting from sharing the European Framework of DIGCOMP 2.0[17], the initial assumption of the research was that for which the digital competences to be implemented in young people were above all "soft skills," such as: critical thinking; digital awareness in terms of both safety and problem solving; digital content creation in the dual perspective of semantics and syntax; and the capacity for collaboration and media communication that underpins the exercise of the rights of active, participatory citizenship (Cortoni, Lo Presti, 2018).

The complexity of the framework of competences that arises from this shows that these competences cannot develop in young people through simple, tacit experience with media, but require forms of cultural mediation by such agencies as schools, in addition to being included in an educational pedagogical path, to promote medium and long-term change in terms of socio-cultural performance (Morcellini, Cortoni, 2007). To guarantee the spread of digital competences among students, it is indispensable to focus on the cultural endowment of the teachers, in order for them to be able to transmit or share these competences with their students during educational activities.

Systematic investment in the development of teachers' digital competences, and not only in terms of technological access, therefore, becomes one of the main challenges of contemporary society to guarantee for the school to preserve its cultural and educational role in spite of contemporary social transformations often determined by the digital revolution itself.

[16] The survey is part of a national programme on digital competence for training and research on digital in Italian schools, promoted by Sapienza University of Rome in 2015 in collaboration with seven Italian universities and the Digizen spin-off.

[17] For regulatory completeness, the 2015 *DIGCOMP 2.0 Framework*, referred to in the essay, was implemented by DIGCOMP 2.1 2017, describing the indicators and the expected performance, and DIGCOMPEDU 2017, designed for the purposes of an ideal inclusion of digital in schools.

The first micro-objective of the research was to verify to what degree the areas of competence present in DIGCOMP 2.0 were now an integral part of the cultural background of Italian teachers, in order to facilitate innovative paths with a view to digital education, and to innovate school curricula in digital literacy. The second objective focused on contextualizing the DIGCOMP 2.1's indicators in the Italian educational system within a curricular path, taking account of age thresholds and of expected learning objectives starting from the theoretical principles of learning during the age of development (Piaget, 1967; Vytgoskij, 1934; Bruner, 1986). Lastly, the third objective aimed to reflect upon the meaning of didactic innovation and quality with digital culture in the teaching process (Ferrari, 2017).

1.2. Methodology and sampling

The research design was structured in three main phases closely connected to the declared objectives: *i*) Survey on digital competences, on a sample of 708 middle school teachers; *ii*) The Delphi group technique, (Dalkey, 1969) involving about 30 stakeholders[18]; *iii*) 5 Evaluation Brainstorming sessions on quality and educational innovation, involving about 46 teachers.

Using a factorial-type sampling plan, the survey, on which we will focus our attention in this essay, randomly selected two middle schools per provincial capital, one belonging to the more peripheral areas of the city, and one in the more central ones. Overall, approximately 30 schools from 15 Italian regional capitals[19] were involved, with prior experiences connected to the first PNSD, a minimum of technological equipment (IWB, Multimedia laboratories, tablets, etc.) and prior digital training experiences for the teachers.

The survey tool that was used was a semi-structured questionnaire articulated in 6 thematic areas, many of which responding to certain DIGCOMP 2.0 size indicators: 1. Cultural behaviour of teachers; 2. Media access; 3. Critical analysis; 4. Creative content production; 5. Digital awareness; 6. Citizenship.

1.3. Results

From the standpoint of media exploitation, many of the interviewed teachers are classified as 'no media users' since they do not use media frequently in their free time (42.3%). About 60% of those who use media may be distinguished as 'analogical users' (18.3%), who habitually consume prevalently analog media (newspapers, magazines, TV); 'digital users' (19.4%), who are more experienced in digital media (PCs, tablets, smartphones, smart TV, Internet, etc.) and 'multimedia users' (19.4%), who use all types of devices without distinction.

However, spontaneous free-time use of media does not always correspond to an immediate use of digital in the teaching profession. In this sense, 23.6% of interviewees declare they do not use media in the classroom ('no media teachers'). These teachers work mainly in the peripheral areas of cities in Central Italy and have a relatively young teaching experience. The other types of teachers are: 1. 'traditional media teachers' (23.7%), with more years of service, originating mainly from the peripheral areas of the Northern Italian capitals that integrate some analog technologies in teaching; 2. Teachers in the metropolitan areas of the cities of Southern Italy and the Islands, with a young teaching

[18] INDIRE (National Institute of Documentation for Innovation and Educational Research), AGID (Agency for Digital Italy), AGCOM (the communications regulatory authority), University, AGIA (the childhood and adolescence monitoring unit), MIUR (Ministry of Education, University and Research), etc.

[19] Abruzzo, Basilicata, Calabria, Campania, Emilia Romagna, Lazio, Liguria, Molise, Piedmont, Puglia, Sardinia, Sicily, Trentino Alto Adige, Umbria, Veneto.

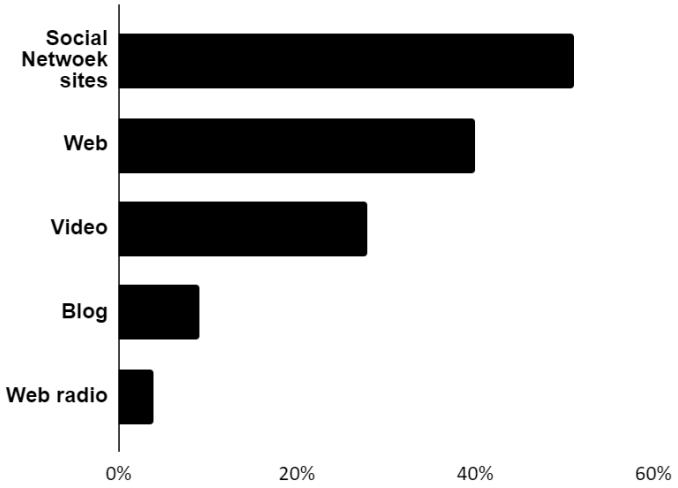
experience, who may be distinguished as 'digital media teachers' (19.9%) and 'multimedia teachers' *(*32.2%).

Starting from this initial outline on the teachers' orientation towards the media, some reflection on the digital competences that teachers actually put into practice on a daily basis is needed. In this sense, taking the areas of competence of DIGCOMP 2.0 as a point of reference, we selected some indicators for each area, observing them in the interviewed teachers' performance.

For example, with regard to the *Information and data analysis* (or *critical thinking*) area, the teachers appear more competent in 'browsing, searching and filtering' (specific indicator of DIGCOMP 2.0) than in 'evaluating'. About 60% of interviewees are used to comparing and assessing the informative material originating from a number of sources and selecting the one that most corresponds to their objectives, while they have more difficulty critically analyzing a digital interface.

For the 'digital content creation' area, 51% of the sample carries out at least one creative writing activity on the Social Networks and uses multimedia software present on the Internet (40%), while blogs and webradio are less used for production. There is no creative activity that is based mainly on designing original media productions or stories starting from the students' needs and requests, or that is articulated taking account of the expected training objectives.

FIGURE 1. *Content creation of teachers (%)*

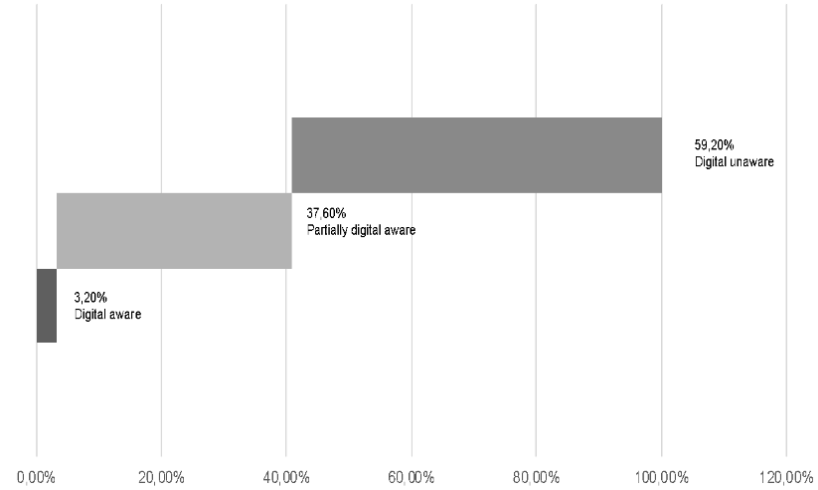


Lastly, for the indicator of *protecting devices* in DIGCOMP 2.0's *safety* dimension, almost all the interviewed teachers (98.9%) fail to recognize the most "commonplace" signs of a problem (slowing of the PC due to virus, anomalous memory traffic or signalling by antivirus program). Starting from this initial information, we surveyed the type and degree of digital awareness, through the construction of a typological index structured into 3 types of teachers:

1. 'digitally aware teachers' (3.2%) capable of completely recognizing at least two anomalies of the device[20].
2. the 'presumed digitally aware' (37.6%), who recognize at least one.
3. the 'digitally unaware' (59.2%), who recognize no anomaly on the devices.

[20] The two indicators on digital awareness taken into consideration for constructing the index are: 1. Recognizing that one's PC is slower than usual; 2. Recognizing anomalous traffic on the memory.

FIGURE 2. *Index of Safety: protecting devices*



Database: 708 cases

Conclusions

While not comprehensive, this general picture of teachers that emerges from this initial reading of digital competences outlines a digital orientation of a procedural rather than creative and design-based nature. Specifically, the strong political investment in infrastructural equipment at schools in the first PNSD appears to have contributed towards spreading a prevalently technical idea of digital culture, often relegated to technological access, as well as to the sharing of reproductive teaching methods, in which teachers often use pre-defined digital application kits instead of custom-designing paths and proposing new teaching strategies contextualized to the socio-cultural, cognitive, and emotional needs of their class, or to the logistical needs of the activities' operational organization. The absence of activism and creativity on the part of the teachers in the classroom may, however, be ascribed to reasons of a cultural nature that most likely reflect the inertia and low creativity of teachers even in their spare time, as well as a lack of motivation and incentives to improve and innovate their teaching process. From an initial reconnaissance of the survey's results, in spite of the presence of some signals of digital culture in the teachers' didactic practices, the general picture of the digital school that may be seen on average in the sample of interviewed teachers still appears far from the expected objectives in DIGCOMP 2.0 and PNSD in terms of implementation of digital competence. This delay is at any rate foreseeable, considering the recent experimentation on digital culture in training which, to this day, still characterizes most Italian schools; in fact, one cannot yet explicitly speak of assessing the impact of DIGCOMP 2.0 on schools. The latest international and national regulations on digital culture (DIGCOMP EDU and DIGCOMP 2.1 dated 2017), although shared in the Italian educational system, require time to be included in daily didactic life in a systematic and ongoing way: they must rely on practical experimentation to identify the most pertinent pedagogical educational approaches, thanks also to the collaboration of those territorial bodies[21] that share the vision of digital culture within the European framework on competences and work with schools to solve the various problems emerging in the digital inclusion process.

[21] Universities, research centres, INDIRE, INVALSI, trade associations, etc.

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The Shift from Paper-Based Test to Computer-Based Test in Italian National Assessment: the INVALSI Case.

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Keywords: *INVALSI, CBT, National Assessment, Teachers, Pupils*

Introduction

In the last thirty year we assisted to the digitalization process of the educational space (Villani, 2018; Landri, 2014, 2018; Giancola, 2016). Nowadays several digital devices (laptop, Whiteboard IWB, electronic register, etc) have become fundamental tools for school, teaching and learning practices in Italy as well as the European countries. This trend has affected also the assessment process all around the world, for instance one of the biggest international large-scale assessment program PISA (Program for International Standardized Assessment) created by OECD (Organisation for Economic Cooperation and Development) started to implement the computer based assessment in 2012. The digitalisation process invested also the Italian Educational system creating changes in daily school practices. In 2016 the INVALSI (National Institute for School System Evaluation) in charge of the national and international assessment programs in Italy announced the shift from paper-based test to computer-based test. In 2017 the Act N° 62/2017 modified the organisation of the Italian evaluation system, introducing amongst other, the use of the computer-based test (CBT) in the Italian national assessment program (PROVE INVALSI).

This work presents the first results of an exploratory research which focus is the analysis of computer based-test implementation in *Prove INVALSI program*.

1. The use of CBT in assessment programs: an open issue.

In the last years several international and national standardized programs started the design and implementation of computer-based test. This phenomenon is the results of technological development, but at the same time is a need produced by the political institutions and supranational organisations. It is possible identify the first elements of the digitalisation process as fundamental requirements of the knowledge economy in The *Lisbon Strategy*. In 2006[22] the European Parliament and the European Council they promoted the key competences for lifelong learning in which they wish for the implementation of computer-based test as improvement of assessment effectiveness. The European rhetoric around 'the necessity' of CBT tools was introduced in the educational space with an enthusiastic faith on technological device.

The soft power (Petterson, 2014) exercised by supranational institutions as OECD or IEA (International Association for the Evaluation of Educational Achievement) produces an isomorphism mechanism observable through the implementation of methods and tools. The shift process from paper-based test to computer-based test is an evidence of the ongoing transformation in European educational space. For instance, the justification exposed by Andrea

[22] https://portal.cor.europa.eu/europe2020/Profiles/Pages/TheLisbonStrategyinshort.aspx

Schleicher to support the adoption in PISA program of computer-based assessment is based on a positivism framework in new technologies (OECD, 2015).

Whilst the European Union, governments and supranational institutions presented the recourse to digital devices as key for improve the educational assessments and systems, several scholars have expressed they concerns about the shift to CBT (Jerrim, 2016; Komatsu, Rappleye, 2017). It is possible to identify problems related to: the cognitive process activated by the computer reading (Jabr, 2013; Mangen et al., 2013); CBT test implies that pupils have a number of basic information and communication technology(ICT) skills to succeed in the assessment (Platt, 2014).; nonetheless school management and teachers could be not trained and prepared to administer CBT (Jerrim, 2016).

1.1. The implementation of computer-based test in the Italian educational space

In the Italian educational system, the implementation of the computer-based tool started with PISA2015 edition. INVALSI, in this case, was executor of the OECD programs, but this event had an impact on the national standardized assessment system.

Carvalho (2012) argues about a PISA world that changes the educational space toward a new kind of mobile policy knowledge which is transferred on national assessment programs. I would argue that the digitalisation process of educational space (Landri, 2018) and assessment programs, is a result of an international isomorphism and adapting process at national level.

After several announcements of the CBT design for the national assessment program (Prove INVALSI), INVALSI implements the shift from paper-based test to computer-based test in 2017 with the Act N° 62/2017. I would highlight the fact that the transition process in Italian assessment programs is formalized-through a policy. That represents the link between the Ministry of Education and the INVALSI and it describes the use of assessment as technology of policy power (Foucault, 2004; Desrosières, 2014).

The main goals pursuit by INVALSI with the implementation of Act N° 62/2017 were:

- The administration of INVALSI test separated from the Final exams of the 8th grade (esame finale scuola secondaria di primo grado). In addition, since 2018 the participation in the CBT is mandatory, otherwise a pupil is not admitted to 8th grade final exam.
- The introduction of English test for the 5th grade of school.
- The Introduction of CBT in Secondary school system for the 8th and 10th grade of secondary school.
- The presentation pupils' results using descriptive level of cognitive skills instead the item score as previous editions.

The CBT was implemented for student of 8th grade of compulsory school (3 *anno secondaria primo grado*) the 10th grade (2 *anno della secondaria secondo grado*) and 13th grade (5 *anno della secondaria secondo grado*), only for the primary school the test is administered with a paper-based tool.

In the last two years Italian media (traditional as well as on-line) focusing on the transition to CBT, but until now no one entered in the Italian school to study the implementation process of computer-based test.

Despite the debate was focused on the pedagogical effectiveness of a computer-based test, it is possible to observe a lack of study on school life changes produced by the use of this new tool. To study this process, it is important to consider the impact in the school life of the CBT, from an organisational, logistic economic point of view.

2. The research

The main purpose of this research is to analyse the impact of the computer-based test implementation at school level. The Research question which drove the project was: What happens in an Italian school when PROVA INVALSI is administered with a computer-based test?

The work was designed using qualitative methods, more specifically the participant observation and the semi-structured interview. The research field was realised in a Comprehensive school (Istituto Comprensivo) in Naples surrounding area. This school is situated in a social-economic disadvantage area in Campania Region.

I observed the administration of PROVE INVALSI of: Literacy (*prova di Italiano*), Numeracy (*prova di matematica*), and English (*prova di inglese*) in CBT format for 2 classes of 8th grade (29 pupils). In 2019 the population of 8th grade assessed through the PROVA INVALSI corresponded to 553.131 pupils. Furthermore, to enhance the data collected I interviewed the School Director, The INVALSI Referent for the school, one of the ICT referents for the school.

3. The Implementation process of CBT

The administration of PROVE INVALSI CBT is a long process which starts from October to May of every scholar year. All the cost of the assessment (devices, other materials, the free time of the teachers involved in the process) are in charge of the school. During this first phase the school office provides the 'contextual data' of pupils.

The second phase of the process is characterised by the pre-test of the devices and the school internet connection. They check the school resources (the number of laptop available, number of phones available). The number of laptop usable influences the success of the assessment. Following the schedule imposed by INVALSI, the school organises the daily activities for the 'administration test calendar' (to decide the number of teachers involved in the test administration…). The school have a time window to schedule the administration of the three tests separately. For each class they establish three days for the administration of the test.

3.1. The administration practices for the standard

The necessary epistemological condition of the Large-Scale standardized assessments (national as well as international) is that each actor apply the standard criteria in the same way. This assumption sustains the 'objective' and 'reliable' nature of the standardized assessment program due to the 'technical' and 'statistical standard criteria (the same protocol for each country and school, the administration at the same time, the same test to collect the data) applied to the process. The data I collect will show that this 'sine qua non condition' is not respected every time by the several actors of the assessment programs.

The INVALSI protocol imposes the presence of two teachers during the test administration: the 'Administrator'(*Somministratore*) and the ICT manager (*responsabile informatico*). The Administrator is not a teacher of the area assessed during the session. Furthermore, the Administrators alternate to avoid cheating practices.

Pupils must sign 4 general registers, and 4 labels with their credentials (id and password). The Administrator must note the time of beginning and ending

of the test for each pupil. All these steps produce paper material which must be stored by the school for 10 years. It is interesting to note the double process of the CBT implementation, on the one hand the INVALSI want to reduce the 'materiality' of the process using digital devices, on the other hand it is producing a protocol validated by the 'paper documents'. Apparently the 'requirements' imposed by the standard produce 'a material paradox'.

3.2. The issues during the administration process

The data show two different kind of problems related to the administration of the test: technical issues, difficulties to understand the test.

The most important technical problem occurred in the first day of 8th grade assessment. During the first 5 five minutes of test administration the INVALSI platform got stuck. Despite, the previous edition of CBT took place without any problems, this year several technical complications were reported. The platform accident involved a lot of school of the peninsula.

The Second problem registered, which involved only the school investigated, was the dispatching of an id and password with a wrong family name for one pupil. To solve this mistake the INVALSI referent obtained instruction from the INVALSI support services. Consequently, the pupil passed the test during a successive moment.

The last technical issue observed is represented by a headphone malfunctioning during the English listening test. This problem could influence the pupil's performance. During the listening it is not possible to stop the audio, and there are no possibilities to repeat the test. Data present that the problems due to the comprehension of the test regarded two areas: the 'reading'; the difficulties to fill in the information questionnaire.

The reading troubles showed a lower level of Literacy detained by the pupils.

In several situations, during the test administration students did not understand the text of the item. In the case of the information questionnaire the difficulties could be the results of the questionnaire design (as presented below).

> #Boy asking to the administrator teacher:
>
> […**Pupil:** …Misses…What should I answer here? They ask me What is my Dad job… He is a trucker? I do not find here… I do not know…
> **Administrator Teacher:** Is the truck of your dad? Or Does he work for a company?
> **Pupil:** No, it is not…He works for a company
> **Administrator Teacher:** Ok, so Your answer is employee…]

Due to the disadvantage context where the school is located, some pupils are ashamed to describe their social background condition, or they do not answer that their parents are in prison.

I would argue that the variables imposed by the standard in the assessment process, do not consider contextual factors which can biased the test results. For instance, the impact of the dialect on Italian pupil's performances (Villani, 2018). In disadvantage contexts, as the school investigated, most of the students speak more in local dialect instead of in Italian. This factor has an impact on pupils' test comprehension. During the test administration several pupils declared that they were dialect speakers more than Italian.

> **#Girl speaking with another classmate:**
> […**pupil1:** How did you answer the question about Italian?
> **pupil2**: Which one?
> **pupil1:** The question about which language I speak at home? I answered Italian but it is false, I should have answered Neapolitan, but I could not…so I wrote Italian, but it is not true….].

4. The link between INVALSI and the school: from the survival strategy to the results restitution

The protocol imposed by INVALSI not always is adaptable to the internal school organisation. The data illustrate that school actors employ 'survival strategies' to combine the requirements of INVALSI protocol with the reality of school resources (humans and materials). The teachers in the school investigated they adopted a formal and informal administrator shifting. The reduced number of the available professor obligated the school to designate the 'special teacher' (*insegnante di sostegno*) as administrator for most of the test sessions.

When the cbt participation became mandatory the INVALSI and the EDUCATIONAL MINISTRY created a very important inequality issue. In a school located in a disadvantage area the truancy or drop-out phenomenon could influence the pupil's participation to the test. Students who do not pass the test are automatically excluded from the 8th grade final exam. To avoid the absence of home-schooling pupils, and the consequently exclusion from the final exam, the teachers decided to administer all the test during the same day for these students.

To move forward with the assessment, due the difficulties produced by the administration of CBT, the teachers administered two or three tests (for example literacy and numeracy) during the same day. Surprisingly, after the administration process INVALSI did not require any kind of information or return from school regarding holding of all sessions. This means that INVALSI does not detain any information about the implementation process, except for sample classes. Consequently, it is possible that exists a lack of information. This is a sort of black box of the administration process which could reduce the reliability of standardized data (Villani, 2018).

With the implementation of CBT the INVALSI changed also the way to present the data for school. They provide to school average results in contrast to the paper test restitution that was structured on the individual test items. Interviewing the school management, I discovered that the INVALSI had not provide any training to interpret and use the CBT data.

Conclusions

Despite the exploratory nature of the work, and the fact that more research is needed to understand the process it is possible identify some interesting results.

The data show a Misalignment between the assessment designed by the INVALSI and the realty where the test is implemented. This process creates a distance between the school reality and the information provided by the assessment (Villani, 2018). These first data present a lack of information and knowledge about the production process of CBT.

The introduction of CBT test produces normative practices (the administration procedures, the compulsoriness of the test) which complicates the school organisation and produces exclusion and Inequalities.

It seems reasonable questioning the quality of school information collected by INVALSI. The Survival strategies carry out by teachers and school management could have an impact on 'methodological standard' which certifies the 'objectivity' of statistical data collected through the assessment.

The use of CBT assessment is still very much open to debate. Further research might investigate for whom the INVALSI CBT data are produced and for which purpose.

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ISBN 978-88-944888-1-4

Proceedings of the 1st International Conference of the Journal Scuola Democratica
EDUCATION AND POST-DEMOCRACY
VOLUME II
Teaching, Learning, Evaluation and Technology

Edited by: The Organizing Committee the 1st International Conference of the Journal Scuola Democratica.
https://www.rivisteweb.it/issn/1129-731X
Published by: ASSOCIAZIONE "PER SCUOLA DEMOCRATICA" - Via F. Satolli, 30 – 00165 – Rome (IT)
FILE IN OPEN ACCESS

This book is digitally available at: http://www.scuolademocratica-conference.net/