

# New study practices. Survey on the use of new and old technologies among university students

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*Novas práticas de estudo. Pesquisa  
sobre o uso de tecnologias novas e antigas  
entre estudantes universitários*

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*Nuove pratiche di studio. Indagine  
sull'uso di nuove e vecchie tecnologie tra  
studenti universitari*

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## ABSTRACT

In a context of “widespread communication”, supported by new tools and work environments, study practices also change, profoundly transforming students’ habits and behaviors. The research in question intends to investigate and describe, through a narrative inquiry process, the study practices of university students, making reference to the integrated use they make of old and new modes of communication, of traditional texts and of digital platforms and tools among the most famous and widespread. The research focuses in particular on the relationship that, through the new tools, is

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established between the student and the teacher, between the student and colleagues and between the student and the study texts. The analysis aimed at describing new habits, will try to demarcate advantages and difficulties related to the use of digital and to analyze, specifically, how the use of new communication methods or new forms of textuality can favor or inhibit communication within the university environment.

*Keywords:* Generative communication. Training. Digital tools. New technologies.

## RESUMO

Em um contexto de “comunicação generalizada”, apoiado por novas ferramentas e ambientes de trabalho, as práticas de estudo também mudam, transformando profundamente os hábitos e comportamentos dos alunos. A pesquisa relatada descreve analiticamente, por meio de um processo de investigação narrativa, as práticas de estudo de universitários, fazendo referência ao uso integrado que fazem de antigos e novos modos de comunicação, de textos tradicionais e de plataformas e ferramentas digitais entre os mais usuais e difundidos. Dentro deste vasto campo de pesquisa, focaliza-se em particular a relação que, mediada pelas novas ferramentas, se estabelece entre o aluno e o professor, entre o aluno e os colegas e entre o aluno e os textos de estudo. Descrevendo novos hábitos, a análise objetivou delimitar vantagens e dificuldades relacionadas ao uso do digital, apontando especificamente como o uso de novos métodos de comunicação ou novas formas de textualidade pode favorecer ou inibir a comunicação em um ambiente universitário.

*Palavras-chave:* Comunicação generativa. Formação. Ferramentas digitais. Novas tecnologias.

## SINTESI

Il presente contributo presenta i risultati di una ricerca qualitativa effettuata con un campione di studenti dell'Università di Firenze finalizzata ad indagare e descrivere, attraverso un processo di indagine qualitativa, le pratiche di studio degli studenti universitari, facendo riferimento all'uso integrato che fanno delle vecchie e nuove modalità di comunicazione, dei testi tradizionali e delle piattaforme e strumenti digitali tra i più famoso e diffuso. All'interno di questo vasto campo di ricerca, la ricerca si concentra in particolare sulla relazione che, attraverso i nuovi strumenti, viene stabilita tra studente e insegnante, tra studente e colleghi e tra studente e testi di studio. L'analisi volta a descrivere nuove abitudini, cercherà di intercettare vantaggi e difficoltà legati all'uso del digitale e di analizzare, in particolare, come l'uso di

nuovi metodi di comunicazione o nuove forme di testualità può favorire o inibire la comunicazione in un ambiente universitario.

*Parole chiave:* Comunicazione generative. Formazione. Strumenti digitali. Nuove tecnologie.

## Introduction

In recent years, the profound changes introduced in communication and information have contributed to the refiguring of the study practices in every order and degree of school, as well as in the university context. The tools available today widen the possibilities offered to students to acquire new elements of knowledge and consequently modify the way in which the personal training path is dealt with. The following are a precious opportunity for the student today: the ease with which one accesses a multiplicity of sources to study in depth the knowledge gained, the possibility of using diversified textual forms for the synthesis and recognition of the notions learned, access to training environments for building profitable exchanges with colleagues and the possibility of establishing more continuous communication with teachers.

However, in a scenario that pays particular attention to innovation and teaching with new media, it is doubtful what actually happens in the “student’s laboratory”; and teachers and researchers are pretty much unaware of the actual behaviour of students and of the new interaction practices with the innumerable tools available (Anichini, 2012). The textbook, the lecture notes provided by the teachers, their explanations in the classroom, are still today the only tools used in the preparation of the exam? How do old habits like taking notes or repeating aloud, asking questions or exchanging information survive? What has changed in the way of interacting with the teacher in the lesson? How much of this wealth of tools available corresponds to an enhancement of the training process, to a real enrichment of the communicative opportunities of the student, to a greater awareness (Cambi, 2010), to a more active role in the process of knowledge construction and greater confidence in educational institutions?

The research presented here does not aim to provide answers to such complex questions that undoubtedly deserve much more in-depth analysis and study; its purpose is only to observe, describe behaviours, analyze the relationships among the teacher, students and the training environment – highlighting their strengths and critical elements – with a view to revisiting the traditional training paradigms and defining new models, which assign a distinctive role to

interaction, collaboration and experimentation - inside and outside the classroom; with the intent, also, to intercept and analyze the gap between expectation and disillusionment, which seems to characterize, sometimes, the approach to innovation and to the practices allowed by the new digital tools.

Describing the new study habits therefore means trying to understand how the student faces the preparation for a university exam today, from the first contacts with the program, up to the reworking of the topics, accomplished through the study of the subjects and comparison with colleagues and teachers. It means grasping in detail the relationship that is established between old and new behaviors and trying to understand how the new habits can enrich or, vice versa, in some cases, make the path of individual study less significant.

The choice to use writing (see the on-board diary [log] prepared by the students themselves presented below) as a survey tool is based on trust in writing as a feature capable of encouraging the involvement of students, as objects/subjects of observation, allowing them to carry out reflexive practice, which is a fundamental part of every authentic and effective training path (Akkaraiu, 2016).

The expectation is that this research, limited in time and in the number of students involved, may represent the first step of a wider investigation, aimed at enriching the knowledge of what is happening, in a delicate area such as that of training (in different orders and degrees), in order to be able to proceed to precise analysis of emerging behaviors in a rapidly changing reality. The logic that moves us is to unveil the reasons for a dispute that sees new and old technologies and methods counter opposed. We wish, rather, to recover a functional approach to the activities of study and the construction of knowledge, of an 'ecological' idea of a training environment, reticular and complex, but continually functional to the conscious growth of the subject.

## Scenario

It has been some years now that the belief is held that technological development and machines can be a valued ally for learning. In a study promoted by Pew Internet Research in 2016, John Horrigan (Horrigan, 2016) reconstructs a brief history of the trust assigned to communication technologies, considered to be active learning and training tools for all. First the telephone (we are in 1912) and then the cinema were considered potential training tools. Thomas Edison himself envisaged a future in which educational films would replace the textbook: "I believe that the motion picture is destined to revolutionize our

educational system and that it will be largely supplemented, if not entirely, by the use of textbooks” he wrote in 1922. A few years later, the radio was called the Assistant Teacher, an assistant able to bring the world into the classroom, as well as, shortly thereafter, many proclaimed themselves enthusiastic supporters of television, as a means by which information could easily come into the homes of every citizen. Each of these positions emphasized the potential assigned to machines in terms of dissemination of knowledge and their potential contribution to the literacy of the population, without explicit references to the various aspects of education.

From the appearance of the Internet (Castells, 2001) onwards, the story that is under the eyes of all begins: educators, parents, students. The richness of the contents available for all and the digital tools have contributed to the redefinition of the mission of educational institutions and of the main actors that operate within them, with important implications for their responsibilities and professional skills.

Potential access to an ever-increasing wealth of information and knowledge, which seems to characterize our years, raises the question of learning to make good use of this privilege. According to José Luis Martín, information literacy is a fluid concept, determined by our experiences and changes in the “information society” (Martín, 2013). The amount of information available online is surprising and finding the best ways to search and access data is difficult without the guidance of someone who helps students to find their way around, to retrieve information, to evaluate sources.

In addition to the topic of information, much has been written about the socializing value of new technologies, in the name of an idea of connectivity that would seem to favor the overcoming of traditional training approaches. There was talk of distributed knowledge and a technology that allows us to continuously update progress in different disciplinary areas, achieved also and, above all, through interaction with a community of users. Stephen Downes (2016) has postulated the existence of three fundamental principles for any form of online learning:

- interaction: we learn from others and others learn from us; everyone must create their own network of interactions and insert themselves in the center of it;
- usability: learning must be coherent and easy in order to be well organized;
- relevance: we must learn what is relevant and important at a specific moment; this is achieved by accessing the content we need and depositing it in the most appropriate place.

These are questionable statements, of course, but the world of education seems to suffer from the fascination and influence of the exponential development of new information and communication technologies. They are considered to be the pivot of a substantial change in the educational paradigm, since they require new skills for the so-called “citizens of the knowledge society”, “digital natives”, “millennials” (Howe, Strauss, 2000) or members of the “Net Generation” (Tapscott, 1998). Labels which, by revealing a tacit reference to forms of technological determinism, have polarized, in recent years, innumerable debates on education.

In this context, teachers are required to adapt to a world in constant transformation and to equip themselves to be able to train students by providing them with the resources necessary for adapting to a versatile society, which requires young people “to learn to learn” and also to “unlearn”; with the aim of having autonomous and flexible citizens, suited to reflective attitudes, in a society where uncertainty and change seem to be the masters. Some sectors of pedagogy support the use of all the technologies available for learning motivation. The theme of motivation remains one of the main arguments for supporting the use of educational technology.

It is clear, however, that the use of technology in itself is not capable of causing a profound change in the training systems, and the act of modifying the approach of those who claim that the lessons, exams, tests and the walled garden of learning is the pinnacle of education.

Some predictive studies of sociology, conducted on the possible scenarios of education of the 21st century (Cornali, 2013), prefigure the disappearance of the school, in line with ideas that date back to the middle of the last century (Illich, 1971), but substantiated today by the fact that flesh and blood teachers, present in buildings dedicated to learning, can easily be replaced by new generation distance courses, available to everyone. The “massive open online courses – MOOCs” have been considered to be the frontier of the last few years, conceived in the name of a democratization of knowledge, but also functional to the politics of education spending reduction, supported by governments, mostly the US. The new media, new in the presence of the book (still today the dominant tool in the training of students from all over the world), seems destined to supplant its function of preservation and transfer of knowledge or at least to become a participant in the learning process.

This issue has raised a dispute that is still ongoing, which fascinates sociologists, educators and psychologists, committed to demonstrating, in this transitional phase that has lasted for some years now, how much tradition or innovation of educational methods and tools can contribute to the success of training. It is the re-proposition, in the formative context, of the old contrast

between “apocalyptic” and “integrated”. The question, however, is not whether new technologies do well or badly, it is instead a question of understanding, if anything, what formative processes they are able to favor or, vice versa, to hinder in an ecological vision of a ‘training environment’, which takes into account an innumerable series of variables.

Even the death of the textbook was announced and denied by a considerable number of studies, favored in part by recent policies that oblige schools of different orders and degrees to adopt digital books or even replace the book in adoption with digital educational content retrieved from the Internet (OER, Open Educational Resources) or even self-produced by teachers and students (Law 128/2013). Against the institutional directives of many countries, or of supranational bodies such as the European Community or the OECD, the digitization of training courses is not yet favorably received by the actors of the process, by the teachers and by the students themselves. The latter, in particular, demonstrates a certain resistance against the abandonment of traditional educational tools (OECD, 2006; OECD, 2010).

Indeed, some research reveals how those who have been defined as ‘digital natives’ declare that they prefer paper every time a more thorough, vertical reading activity is requested, not to be confused with the ‘surfing’ activity practiced far from study contexts (Baron, 2015). The authority given to the paper book seems to be supported by widespread opinion among the young generations that see in the traditional book a more reliable source of information than the network: according to recent studies (CIT) 62% of young people under 30 are convinced that it is better to search the libraries for useful information for their studies and prefer to surf the Net in their free time.

Studying on paper is simpler, for example, for students of the humanities at the University of Washington: the data can be found in a research report on the use of textbooks and learning platforms that the University carried out in 2013. The research also investigates the perception of the student about his own reader profile: a reader that is averagely active and not very social, based on a Likert scale proposed by the researchers: (5) indicated an active reader defined as reading that involves highlighting, note taking, and outlining and (1) indicated a passive reader defined as reading without highlighting, note taking, or outlining. (5) indicated to social reader defined as discussing and sharing readings with others; sharing observations and ideas acquired through reading, (1) is defined as doing reading without discussing it with others (Giacomini et al., 2013).

Even for leisure reading, young people between the ages of 13 and 17 seem to prefer paper books: the data is provided by research conducted by Nielsen, which reveals how the number of ebooks purchased by young readers is indirectly proportional to age.

More specifically, other research has been carried out, including the study conducted by Anne Mangen of Norway's Stavanger University, which in 2012 investigated the relationship between text comprehension and support. The results of this study indicate that linear narrative reading and expository texts on a computer screen leads to poor reading comprehension than reading the same texts on paper (Mangen, 2013). The research alludes to the pedagogical implications of this result: the different modality of presentation of a content has significant influences on the deep understanding of the text and on the memorization of the contents.

The issue is complex and undoubtedly deserves in-depth analysis, carried out as much as possible with a willingness to accept innovative drives, but also to 'tell' a future that is viable and oriented by a mature pedagogical and sociological culture, which takes into account, finally, the voice of its direct protagonists, the students. Bringing about an active role in the reconfiguration of training models means giving voice to their perception of the training paths and tools available; to their needs and difficulties encountered, to help them in an exercise of awareness that undoubtedly represents the first step of competence for the future (Demetrio, 1996).

## **The project and its phases**

Starting from the scenario just described, the project "New study practices. Survey on the use of new and old technologies among university students", conducted by the Center for Generative Communication of the University of Florence in collaboration with Alessandra Anichini (INDIRE researcher) and Jose Antonio Cordón García (Director of the E-Lectra University Group of Salamanca), intends to investigate and describe the practices and study habits of Italian and Spanish university students, with reference to the integrated use they make of communication and textuality traditionally understood - manuals, textbooks, notes, etc., in combination with the most well-known and widespread digital platforms and tools - Wikipedia, thematic portals, in-depth sites, blogs, social networks.

The aim of the project is to describe the main study methods used for the preparation of an exam in the Humanities, with particular reference to the integration of new channels and digital tools with the traditional textual and communication forms. Within this vast field of investigation, the research focuses in particular on the presence of 'dialogue' in study practices; a dialogue



understood as a relationship of comparison and exchange that is established at various levels: between student and teacher, between student and colleagues and between the student and the study texts themselves. The analysis therefore tries to describe the way in which the new communication tools and the new texts manage to favor or, conversely, to inhibit the relationship that the student establishes with the teacher, with colleagues and with the didactic contents, precisely on the basis of the study habits learned. In this scenario, the digital tools can, in fact, represent an added value only if it promotes in the student a really creative and proactive attitude that allows him to appropriate and rework the various contents addressed individually and socially (Jenkins, 2006).

The implicit objective of the project is also to “awaken” in students a more direct attention to their study habits, to the motivation, in the direction of the development of a reflexive practice that becomes an instrument of appropriation of the study contents, as well as of self-analysis. A reflection that contributes to giving back to the students an awareness of an active role towards their own growth path, together with a wider responsibility towards the transformation processes that the educational institution is going through.

Following the generative methodology (Toschi, 2011), the dynamics of two classes of students have been closely analyzed, to understand how the relationships, which are established between them, between the teachers and between the study materials, create, *de facto*, a complex and changing educational environment.

The project (the steps of which are analytically described in the following pages) provided for a first phase of careful recognition of the theoretical reference scenario, which allowed the finalization of the first research draft. Subsequently a preliminary phase of direct listening of a sample of subjects followed, through semi-structured interviews. This preliminary phase had the purpose of further defining the focus and structure of the research, the sampling of the subjects, the questions and the inputs that were submitted to the students in the next phase. The sample selected in the preliminary phase is quantitatively and qualitatively similar to that taken into consideration to develop the actual project. The next phase (which we will define from now on Phase 2) focused on the investigation of the main study methods for the preparation of an exam in the humanistic field adopted by a representative sample of students enrolled in the Master’s Degree Course in Theories of communication at the University of Florence.

Following the main indications of the Narrative Inquiry (Clandinin, 2007), the research was conducted through the analysis of a personal diary, present in a specially created digital training environment, in which the student was asked to recount his/her own weekly study habits.

The role of the researcher was to monitor the progress of the writing, interacting with the students, asking them questions or asking them to investigate aspects that were unclear. During the third phase (Phase 3), the contents emerged from the diaries were collected and submitted for content analysis, according to a specific methodology that goes beyond what was explicitly written by the students, to identify common patterns of behavior.

## **The generative methodology**

The research in question applies the generative methodology, experimented by the Center for Generative Communication (CfGC), to a field of investigation that represents one of the focuses of the activity of the Center itself: the relationship that is established, albeit in different contexts, between symbolic and real dimensions, through the use of new technologies.

The generative perspective starts from the assumption that the communication system that today characterizes social dynamics is considerably strengthening the transmissive, hierarchical, emulative dimension of the communication and educational processes (Castells, 2002), thus becoming an expression of a culture that tends to penalize and slow down the emergence of our implicit and explicit knowledge.

The generative model of communication, on the other hand, aims to define a ‘generative’ environment of knowledge, experience, knowledge that is capable of enhancing and maturing in the subjects involved in the process, the awareness of the existence of ignored knowledge, denied, and inhibited by the organization (Toschi, 2012). The objective of generative communication is to go beyond the alternation between processes based on top-down or bottom-up models, in the direction of a reinforcement of the integration even conflictual between the two communication methods.

The generative methodology activates strategies and communication processes that are able to intercept and intervene directly on the needs - expressed and unexpressed - and on the different problems encountered in different areas: socio-cultural, political and economic. The research approach is always “participant”, that is, it sees the researcher personally involved in reading and interpreting the elements and data that emerge during the work. The starting questions, at the basis of the research, are strongly characterized, that is, they reflect an explicit ideological-value project of which the researcher is a promoter, but they are corrected and reformulated following the dialogue that is activated

with the object and the subjects of the research itself. Attention to constant dialogue between the parties also implies a conscious involvement of the subjects observed, who are called to participate in all phases of the research and to share the underlying structure of the project itself.

The active involvement of all the subjects (in this case students, teacher and researchers, for the entire duration of a course) solicited from time to time according to different strategies (from writing practices, to interviews or video shootings, constantly used as dialogue tools) helps to reconfigure the observation environment right from the start, defusing the given dynamics, introducing elements of novelty that have the strength to produce, already in progress, some observable effects (Toschi, 2015a; Toschi, 2015b) .

The way in which data is processed during the reading phase is also different. While taking up the main theoretical and content analysis models (Berelson, 1952; Krippendorff, 1983; Laswell, 1950; De Lillo, 1971) the researchers proposed a re-reading based on the generative methodology. Specifically, considering also the limited number of the sample of subjects involved, rather than the methods of automated data reading (think of the different software currently on the market), much attention was paid to the in-depth analysis of the relations underlying the explicit contents, thus placing a kind of qualitative analysis underway to enhance the relationship between “philology” and “criticism”, which is the relationship between punctual data and information emerging from the reading (in this case of student diaries) and the interpretation advanced by the researchers when they go to re-read, analyze and contextualize such information within a well-defined scientific landscape, framed by the research questions of the project and, above all, by the first hypothesis of solution and response. The two moments (philology and criticism), although dealt with in later times, have a co-presence with variability in weight. It is beyond doubt, in fact, that if at first the most “philological” part emerges more forcefully, it is also true that the “critical” part already begins to define itself clearly and to question (and here the true generative process originates) the type of data collection put in place, the selection of information and, consequently, the same research questions that underlie the project (Rositi, 1971). Vice versa, in the second moment of the analysis, although more focused on the reading and “critical” interpretation of the data, the generative mechanism often leads to a massive intervention both in the redefinition of the research questions, and in the type of data sampling adopted in the philological part. Both moments of content analysis are naturally generative because they do not simply respond to initial questions, filling a previously set grid, but they come to pose themselves critically with respect to the questions that are formalized at the start. The content analysis, therefore, contributes significantly to the research when it identifies, analyzes and ques-

tions the relationships that are established between the first level data - those expressly formalized by the students - and the second level data, those implicit and non-formalized that emerge when the researcher, reading the first level data, interprets them and discusses them, taking into account the questions that are at the basis of his/her research and identifying the threads and relations that are not always explicit that link the data themselves.

## **The steps of the project**

### *Step 1. Interviews for the definition of the analysis grid*

The project included a preliminary phase (Phase 1) for listening to a representative sample of students. This phase, preparatory to the actual experimentation, developed at a later date, provided for a series of semi-structured interviews aimed at detecting the study habits of the students of a master's degree course, related to the humanities. Phase 1, which took place between June and July 2016, focused mainly on defining the methodology, issues, research questions and the first formulation of the content analysis grid.

The interviews were carried out by researchers from the Center for Generative Communication and the E-Lectra group, with a view to defining a common protocol and activating a structured comparison between the habits and study behaviours of Italian and Spanish students, who follow degree courses pertaining to the humanistic field. To facilitate the work of the group, all the interviews took place within the premises of the CfGC and were audio-recorded, with the permission of the interviewee, to allow a possible listening and a subsequent re-reading of the data. Each interview had an average duration of 45 minutes and was held by an interviewer, who conducted and managed the moment in the presence of and by a project partner who was present during the first minutes of the interview itself. Thus, for each interview, both the audio recordings and the minutes of the findings were archived.

Going into the contents of the interview, the questions were aimed at analyzing in detail the study habits and behaviours adopted by each individual student before the beginning, during the course and after the end of a course. In each of these three moments the researchers tried to bring out above all those elements of knowledge linked, on the one hand, to the presence, or not, of the dialogic dimension within the study practices between student and teacher, between student and colleagues and between student and the same study texts; and, on the other hand, the way in which the new communication tools and new

technologies can favour or, in some cases inhibit, the relationship that the student establishes with the teacher, with colleagues and with educational contents.

The main objective was to identify the areas, issues and structure of what would then be the starting grid for content analysis, further developed and used in the second phase of the project on a different sample of subjects, albeit with similar characteristics.

The first results emerged confirmed the installation and the interpretative point of view given to the research. Many of the questions asked, in fact, have highlighted the strengths, together with the critical issues that, although in different ways, arise in the daily management of the relationship between the individual student and the teacher, and between the student and a training environment.

Phase 1 highlighted another extremely significant node in which the second part of the experimentation placed more attention, or relational discomfort experienced by the students themselves. In fact, the difficulty that the students encounter in formulating questions in class during the lessons and questions aimed at clarifying the topics covered in the course emerged clearly. Therefore, such a culture of demand seems to be missing, so fundamental in an effective training environment, which allows students to create a relationship of real exchange and confrontation with themselves first, and then with others.

In this situation, often, the privileged channel to better understand the concepts addressed and to obtain information on unclear elements becomes the Network. A compensatory solution to a lack of direct comparison. Even the relationship with the classmate seems to suffer the same fate: the difficulty of exchange is a constant for the students interviewed. This difficulty would be lost when the requests for help are not formulated in person, but through devices and social channels. Applications like Whatsapp, Skype, Google Hangout and Facebook, in fact, are widely used to create a virtual network in which to share doubts and information.

The last significant figure, found in the preliminary phase of the investigation, is closely connected to the utility recognized in the 'presence' lesson; even if the use of online channels and environments is very much growing among students, the 'presence' lesson remains the tool perceived as more functional for assimilating and making the contents treated its own. Unlike what has been assumed, in fact, to face the topics in the textbooks in class with the teacher would be the real added value of participation in the lessons; the teacher, therefore, comes to assume the role of a real mediator and translator of otherwise difficult to understand contents.

## *Step 2. The diary and data collection*

After redefining the research questions and the points on which to pay more attention, Phase 2 of the project started with the involvement of 16 students enrolled in the Master's Degree Course in Communication Theories of the University of Florence, enrolled in the 2016 academic year -2017.

All the students were asked to sign a research pact that involved them, for the entire academic year, to write a research diary within an ad hoc writing environment, following the input that the researchers provided them and respecting the indicated deadlines. The research diaries of each individual student were private, visible only to the writer of the texts and to researchers who, through comments, interacted with the author of the texts. Therefore, each student could only access their own content. It was necessary, in fact, to maintain anonymity towards the other subjects that made up the sample, to avoid altering the results of the investigation. For this reason the researchers were the only ones who, in addition to the student, could read the texts produced and intervene in the discussion.

The inputs provided were six:

The **first input** was about how students prepared to attend a lesson; they were asked, in fact, to identify the preliminary actions carried out before the course began: if they started to in advance to read the recommended texts, if they carried out some preventive research aimed at obtaining more information about the authors and contents of the texts present in the bibliography etc.

The **second input** focused on the presence and participation of students in the lessons; through explicit references to the way they took notes, they were asked to reflect on the degree of participation in the classroom and on the possible ways of interacting with the teacher and colleagues.

The **third input** focused on the analysis of how students studied a university text. Specifically, they were asked to describe what activities they usually did when they read a text, both paper and digital, (read all parts of the text, underline and / or pin the most important things to the side etc.).

The **fourth input** invited students to reflect and describe the way they integrated the notes taken in class with the texts to be studied. Specifically, they were asked to describe if, after the lesson, they corrected and supplemented the notes and, above all, if something was not clear, they activated a channel for exchange and comparison with the teacher and/or colleagues.

The **fifth input** focused on information storage. Specifically, students were asked to describe the methods they used to memorize different information for the final exam (study alone or in a group, read aloud or in silence, integrate the

contents) on textbooks with other tools such as online encyclopedias, note-taking platforms for students, institutional sites).

The **sixth and final input** focused on the spaces and times of the study. In fact, the students were asked to focus their attention and describe the times, the places where they preferred to study (in the library, in their room).

### *Step 3. Reading the data*

Once all the inputs were provided, the researchers analyzed the student journals.

While taking up the main theoretical and content analysis models, the researchers proposed a re-reading based on the generative methodology. Specifically, much attention has been paid to the in-depth analysis of the relations underlying the explicit contents, implementing a qualitative type of investigation aimed at enhancing the relationship between the punctual data and the information emerging from the reading and the interpretation advanced by the researchers in the moment in which they went to re-read, analyze and contextualize this information within a well-defined scientific landscape, framed by the research questions of the project and, above all, by the first hypothesis of solution and response (Silverman, 2000).

The content analysis made it possible to identify the relationships that were established between the first level data - those expressly formalized by the students - and the second level data, the implicit and non-formalized data that emerged when the researcher, reading the first data level, interpreted them and discussed them, while taking into account the research questions.

## **Results**

### *1) Presence lessons: a communicative event of fundamental importance*

From the data emerging from the research it was possible to determine that the participants in the trial unanimously recognize a strong added value of the presence lessons; the latter, in fact, are characterized as structured communicative events that allow students to get in touch and deal directly with the central topics in their training.

Participating in the lessons, in fact, allows the subjects involved to use a valuable tool to be able to prepare in the best way for the exam: the role of the teacher being to mediate between the complexity of the contents that character-

ize the course and the learning needs of the students. In this way, the teacher assumes a central role in helping the student to identify thematic nuclei and problems to be explored during the preparation of the final exam.

Another important element of knowledge that emerged is related to the way in which the lesson legitimizes and strengthens the confrontation and exchange among different students.

### *2) The lack of a structured dialogue between teacher and students*

The subjects involved in the experimentation have also revealed the strong conflict that animates the relationship between the teacher and the students. While on the one hand the students involved have repeatedly stressed the importance of analyzing the topics covered by the course with the teacher in the classroom, on the other hand there are very few who have claimed to be able to interact, through questions and reflections shared in the classroom, with the teacher.

The fear of saying something wrong, of being misunderstood or of appearing as not very attentive and informed on the topics dealt with, greatly limits the possibility of making the communicative “presence lesson” event as a moment of real confrontation between the parties.

In fact, students rarely turn to the teacher to clarify their doubts; on the contrary, they prefer to ask colleagues for help to learn more about unclear contents and, alternatively, to start a search on the internet using a smartphone or a computer during the lesson. Furthermore, there are very few students who require a direct confrontation with the teacher in a private reception.

The dialogue between students and the teacher, therefore, appears to be poorly structured and linear due to a strong fear of the learner himself to show openly and legitimize his doubts and his own insecurities.

### *3) The difficulty of creating a network of exchange and comparison with the companions*

Also significant is the difficulty that emerged in relations with fellow students. Many have stressed that even the dialogue among students themselves is limited and suffers from the same fear of not paying attention to the activities carried out in class. The greatest interactions take place on the occasion of requests for exchange of notes and audio recording of the lessons.

The class group, in fact, tends to segment itself into sub-groups that activate real communities in which moments of confrontation and verification of what has been learned are born. The main criticality of this phenomenon is that the



various sub-groups do not interact with each other, frequently creating, in fact, a 'leopard-spotted' structure that is not very functional to the exchange among all the parties involved.

#### 4) *The predilection for the study on paper support*

Despite the various digital tools available today, the students declared to continue to prefer paper support both for taking notes and for studying.

The book device, in fact, continues to be the most preferred one as it allows you to write down ideas, highlight interesting passages, integrate sentences or paragraphs explained in depth by the teacher in the classroom. Even those who use the PC reproduce the same dynamics that have always characterized the study methods on paper.

Finally, the internet is elected as the tool *par excellence* for identifying other sources to be included in the training of learners and, above all, to encourage distance comparisons among students through chat and social networks.

## Conclusions

From the results presented it emerges how the new digital tools, the development of new technologies and increasingly pervasive automation processes are profoundly modifying the study practices and transforming the behaviors of university students.

The research, in fact, has highlighted a strong illiteracy related to scripts that induce a specific use of digital tools that leads students to no longer know how to read - in the sense of analyzing and understanding - and, therefore, writing - in the sense of designing - the contents that are offered to him without the need for a strong mediation of the teachers and, above all, of the information found on the Net.

Therefore, it is necessary to design and define a more active and conscious role of students in the processes of innovation in the educational field that goes in the direction of making them able to critically rethink their personal study path. At stake, in fact, there is not only the possibility of having a more efficient and sustainable education system, but the very quality of democracy.

## REFERENCES

- Akkaraiu, S. & Wolf, A. (2016). Teaching Evolution: the Blog as a Liminal Space. *Journal of Effective Teaching*, 16(2), 32-46.
- Anichini, A. (2012). *La didattica del futuro*. Milano: Pearson.
- Baron, S. (2015). *Words Onscreen, The Fate of Reading in a Digital World*. Oxford: Oxford University Press.
- Berelson, B. (1952). *Content analysis in communication research*. Glencoe, Ill.: Free Press.
- Cambi, F. (2010). *La cura di sé come processo formativo*. Roma-Bari: Laterza.
- Castells, M. (2001). *Internet Galaxy*. Oxford: Oxford University Press.
- Castells, M. (2002). *La nascita della società in rete*. Milano: Egea-Università Bocconi.
- Clandinin, D. J. (2007). *Handbook of Narrative Inquiry. Mapping a Methodology*. Thousand Oaks: Sage.
- Cornali, F. (2013). La scuola che verrà. *Quaderni di sociologia*, 61, 99-120.
- Demetrio, D. (1996). *Raccontarsi. L'autobiografia come cura di sé*. Milano: Raffaello Cortina Editore.
- De Lillo, A. (1971). *L'analisi del contenuto*. Bologna: Il Mulino.
- Downes, S. (2016). New Models of Open and Distance Learning. In: Mohamed, J., Kinshuk, M., Koutheair, K. (Eds.). *Open Education: from OERs to MOOCs* (pp. 1-22), Berlin: Springer.
- Giacomini, C., Wallis, P., Lyle, H., Haaland, W., Davis, K., Comden, D. (2013). Exploring eTextbooks at the University of Washington: What We Learned and What is Next. *UW Information Technology*, August 2013, 7.
- Horrigan, J. B. (2016). *Lifelong Learning and Technology*. Pew Research Center.
- Howe, N., Strauss, W. (2000). *Millennials Rising: The Next Great Generation*. New York: Vintage.
- Illich, I. (1971). *Deschooling Society*. New York: Harper and Row.
- Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press.
- Krippendorff, K. (1983). *L'analisi del contenuto*, Torino: ERI.
- Laswell, H. D. (1950). *Power and Society. A Framework for Political Inquiry*. London: Yale University Press.

- Mangen, A. (2013). Reading linear texts on paper versus computer screen: Effects on reading comprehension. *International Journal of Education Research*, 58, 61-68.
- Martín, H. S. (2013). *MOOC: Estado de la situación actual, posibilidades, retos y futuro*. Salamanca: Scopeo.
- OECD. (2006). *Think Scenarios, Rethink Education*. Paris: OECD Publishing.
- OECD. (2010). *Education Today 2010: the OECD Perspective*. Paris: OECD Publishing.
- Rositi, F. (1971). *L'analisi del contenuto come interpretazione*. Torino: ERI.
- Silverman, D. (2000). *Doing Qualitative Research. A practical guide*. London: Sage Publication.
- Tapscott, D. (1998). *Creciendo en un entorno digital: La generación Net Edition*. New York: Mc Graw Hill.
- Toschi, L. (2011). *La comunicazione generativa*. Milano: Apogeo.
- Toschi, L. (2012). Prima lezione di comunicazione generativa. In: Anichini, A., Boffo, V., Cambi, C., Mariani, A. e Toschi, L. (Eds.). *Comunicazione formativa. Percorsi riflessivi e ambiti di ricerca* (pp.3-38). Milano: Apogeo.
- Toschi, L. (2015a). Cuando las nuevas tecnologías dejan de ser nuevas, ¿qué será de nosotros? *Hachetetepé. Revista científica de educación y comunicación*, 11, 15-28.
- Toschi, L. (2015b). Il digitale che voleva cambiare il mondo. *In-Formazione – Il digitale tra di noi. Educazione, famiglia e responsabilità sociale*, X, 13, 16-25.

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